

THE
AMERICAN COAST PILOT,

CONTAINING THE
COURSES AND DISTANCES

BETWEEN THE
PRINCIPAL HARBOURS, CAPES, AND HEADLANDS,
FROM

Passamaquoddy, through the Gulf of Florida;

WITH DIRECTIONS FOR SAILING INTO THE SAME, DESCRIBING THE SOUNDINGS,
BEARINGS OF THE LIGHT-HOUSES AND BEACONS FROM THE
ROCKS, SHOALS, LEDGES, &c.

Together with the

COURSES AND DISTANCES

From Cape Cod and Cape Ann to George's Bank,

ROUGH THE SOUTH AND EAST CHANNELS, AND THE SETTINGS OF THE CURRENTS:

With the

LATITUDES AND LONGITUDES

OF THE

PRINCIPAL HARBOURS ON THE COAST;

TOGETHER WITH

A TIDE TABLE.

BY EDMUND M. BLUNT.

Corrected and Improved by the most Experienced Pilots in the United States.

ALSO,

Information to Masters of Vessels, wherein the manner of transacting Business at the
Custom Houses is fully elucidated.

NINTH EDITION.

NEW-YORK:

PRINTED FOR EDMUND M. BLUNT

AT THE QUADRANT.

Jan. 1817.

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fully elucidated.

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THELON RUDD,
Clerk of the Southern District of New-York.

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RECOMMENDATIONS.

Newburyport, January, 1804.

THE subscribers, a Committee from the MARINE SOCIETY of *Newburyport*, having examined "BLUNT'S AMERICAN COAST PILOT," certify, That they have carefully perused the work, and finding it to be accurate in every part, within the compass of their knowledge, recommend it as useful and valuable to Navigators.

WM. RUSSEL,
WM. NOYES,
NICHOLAS JOHNSON,
EBEN. STOCKER,

A. WHEELWRIGHT,
BENJAMIN WYATT,
SEWELL TOPPAN.

THIS is to certify, that the subscribers, at the request of the Proprietor of the "AMERICAN COAST PILOT," have carefully examined the several ports we have sailed into, and, from experience, declare the directions given for *Boston, Marblehead, Salem, Beverly, Cape Ann, Annis Squam, Newburyport, Ipswich Bay, Portsmouth, from Cape Neddock to Cape Porpoise, from thence to Wood Island, Portland, Hussey's Sound, &c.* to the eastward, to be correct, the work a very useful publication, and deserving the encouragement of all concerned in navigation.

JAMES SAUNDERS,
ISAAC NOYES,
WILLIAM MILBERRY,
JOHN SOMERBY,
ENOCH LUNT,
ENOCH LUNT, jun.

MOSES BROWN,
NATHAN POOR.

} Branch Pilots at Newburyport.

Deer Island, October 4, 1796.

THIS will certify, that I have proved, from experience, since the within "AMERICAN COAST PILOT" was published, that the directions for the *Eastern Coast* are correct, and recommend it to Navigators of every kind, as a valuable work.

ROBERT CAMPBELL.

Wiscasset, June, 1796.

THIS is to certify, that we, the subscribers, at the request of the proprietor of the "AMERICAN COAST PILOT," have carefully perused the same, and pronounce it a good work, and worthy the attention of all mariners.

ALEXANDER ASKINS,
DANIEL BAKER.

Salisbury, 1796.

THIS will certify, that I have carefully examined the within "AMERICAN COAST PILOT," and compared it with charts which I know from experience to be correct, and do recommend it as a valuable work, and worthy the attention of Navigators.

BENJAMIN LURVEY.

Portland, May 8, 1798.

BEING requested by the Proprietor of the "AMERICAN COAST PILOT," to peruse and examine the same, I have carefully done it, and recommend the book to be of general utility, and well worthy the attention of all concerned in Navigation, as containing the most safe and correct directions ever published for the American Coast, and such as may be used with safety in times of danger.

JOHN THURLO.

Portsmouth, June 15, 1796.

THIS may certify, that the subscriber, having carefully examined the "AMERICAN COAST PILOT," and finding it very correct, think it my duty to recommend it for general use to mariners, as being the most valuable publication extant.

HOPLEY YEATON.

Boston, June 17, 1793.

THIS may certify, that the subscriber having examined the "AMERICAN COAST PILOT," by desire of the Proprietor, do pronounce it very correct and worthy the attention of all mariners.

THOMAS KNOX,

Branch Pilot for Boston Bay and Harbour.

Newshorem, March 15, 1803.

THIS may certify, that the subscriber, Pilot for *Block Island Channel, Long Island Sound, Vineyard Sound, and Nantucket Shoals*, has carefully examined the "AMERICAN COAST PILOT," and do pronounce it a very correct and useful publication for all Navigators.

BURTON BRIGGS.

Philadelphia, November, 1796.

THIS shall certify, that the subscriber, Branch Pilot for the *Delaware*, having carefully perused the directions given for sailing in by *Cape May* and *Cape Henlopen*, from thence up the bay to the city of *Philadelphia*, contained in the "AMERICAN COAST PILOT," and, from experience, declare them to be very correct, the work very useful, and worthy the attention of all mariners.

WILLIAM SCHILLENGER.

Savannah, (Geo.) Dec. 3, 1804.

THIS may certify, that the subscriber, having long been a Pilot for the port of *Savannah*, and being requested by EDMUND M. BLUNT, Proprietor of the "AMERICAN COAST PILOT," to examine and give my opinion of the work, conceive it a duty due to mariners for me to recommend it for their use, as being very correct.

WILLIAM BROWN.

Baltimore, June, 1808.

THIS may certify, that the subscriber, having examined the "AMERICAN COAST PILOT," by desire of the Proprietor, do pronounce it correct and worthy the attention of all mariners.

MARTIN HAZARD,
Branch Pilot for Baltimore.

Martha's Vineyard, June, 1808.

THIS may certify, that the subscriber, having examined the "AMERICAN COAST PILOT," by desire of the Proprietor, do pronounce it correct and worthy the attention of mariners.

CLIFFORD DUNHAM,
Pilot for the Vineyard.

PREFACE
TO
THE NINTH EDITION
OF THE
AMERICAN COAST PILOT.



THE Author of the AMERICAN COAST PILOT this day issues the Ninth Edition of that valuable work, from the metropolis of America, and appeals to that useful class of society, to whom he has devoted nearly thirty years, for approbation. Here correct information shall refute prejudice, and every possible exertion be made to perfect an undertaking which is calculated to "*guide the Mariner through the pathless ocean.*"

It has been the object of the editor, in each successive edition of this work, to obtain all the information necessary to render it a correct and complete PILOT FOR THE WHOLE COAST OF NORTH AND SOUTH AMERICA. The very great demand for every impression since its publication, has scarcely afforded him opportunity to render the succeeding one as copious as the subject demanded, till the present, in which improvements, highly important, are introduced, as shall be more fully elucidated.

Of the many improvements which the science of navigation has been continually receiving, in the lapse of many centuries, since the invention of the compass, perhaps there is no one which, in its ordinary operation on maritime affairs, embraces a greater scope of practical utility, than an accurate description of the marine boundaries of countries, by which, the adventurous mariner may recognise his coast at a distance; the soundings and courses of channels by the knowledge of which he sets the rock-bound shore at defiance; and the aspect and properties of harbours, into which he can enter with security, and embay himself from the inclemency of the elements. This remark is suggested with the more confidence, as it results from the consideration, that the life, even of the most experienced mariner, is more endangered as he approaches the coast, however correctly he may be acquainted with its soundings and its curvatures, than it is when exposed to the billows of the tempest, which agitate the mid ocean. The important aid which the learned Navigator derives from the calculation of the longitude by lunar observations, is undoubtedly among the most distinguished benefits of modern nautical improvement; and it is a branch of naval education with which the mariners of our country have of late years become, generally, familiar. When the spirit of adventure had extended the American commerce beyond the capes of either continent, what was before useful, became then indispensably necessary, that navigation should be taught as a science to the conductors of our merchantmen, and it was soon no uncommon spectacle to behold the American Eagle, lately unused to scientific restraint, shaping his course through foreign climes by the rules of geometry. The charts and marine directions with which foreign countries abound, have also rendered the profession of the sea less dangerous. These powerful aids have almost every where been ex-

tended to the protection and encouragement of commerce ; till within late years few Charts have been published in this country; but through the enterprize and assiduity of our nautical characters, information has been obtained; soundings and curvatures annexed; and every requisite for improving those of our own, and coasts contiguous, procured, which challenges European publishers to excel us in the construction and usefulness of a Chart which may be confided in at moments when the lives and property of that valuable class of society are exposed to a treacherous element. But to collect in a compendious volume the most authentic description of the harbours, and an accurate detail of the courses and soundings of the American coast, has long been a desideratum among nautical and commercial men ; and until the appearance of the first edition of the AMERICAN COAST PILOT, in 1796, no attempt, we believe, had ever been made in any part of the union to effect it. To accomplish so important an object, which was embarrassed with more than the ordinary difficulties with which all new works are involved, the editor, actuated by a principle of commercial benefit, and assisted by the most correct and experienced Pilots in the United States, hazarded the publication of that work under auspices by no means favourable to its eventual establishment, as a book of reference and directions to mariners. Incident to the very arduous and complex nature of the work itself, much inadvertence and error found admission into its pages, which no industry of the editor could avoid. Add to this, the avowed hostility of Pilots in many commercial cities, with whose interest it militated, to permit any degree of reputation to be attached to a publication, whose professed design was to make commanders of vessels their own pilots, and to relieve, from the minds of their owners, every apprehension of danger, by the certain conviction that this cabin-companion would be the means of security.

But, notwithstanding the objections of interest, and the cavils of malice, the editor feels it a duty which he owes to the independent candor and integrity of some of the pilots, particularly in this city, to remark, that their friendly assistance and information have largely contributed to the present highly improved state of his COAST PILOT. It is, however, unnecessary minutely to follow, step by step, the various and indefatigable efforts which for years have been exerted in all the principal cities in America, to render this work as correct in its execution, as it was extensive in the purposes it contemplated. Every source of marine intelligence which our country affords, and which the narrow and selfish prejudice of ignorance has not rendered inaccessible, has been resorted to by epistolary correspondence, expensive journeys, and unwearied application. As the fruit of his labours, it is now the happiness of the editor, to present to the maritime and commercial public, the ninth edition of the AMERICAN COAST PILOT, exhibiting a perfectly accurate compendium of the American Coast Navigation, and combining all the information on this subject which skilful experience and modern discovery have collected. To this work we annex, and recommend the perusal of, a letter from SAMUEL L. MITCHILL, late Senator in Congress, and now Professor of Natural History in the University of New-York, F. R. S. &c. as an infallible proof, that however popular opinion, founded in ignorance, has its votaries, men of science, by investigation, dispel every doubt and correctly portray the works of nature.

The general accuracy of the eighth edition, as tested by the careful revision of the most skilful and scientific navigators, and the experience of masters and mariners, who have had occasion to follow its directions, left but few errors to be corrected in the present volume ; but owing to recent alterations in the Light Houses, and late information obtained, the present edition is highly important : among other additions are introduced the following, viz. a description of all the Light Houses in the United States, adapting the directions for passing them to the alterations ; plan of New-York harbour on an extensive scale ; directions for Little Egg Harbour, (a port which may be resorted to by vessels bound to New-York or the Delaware, when, by a strong N. W. wind, they cannot enter the Hook,) where they may find a safe harbour, and have not less than two and a half fathoms at low water ; a plan of the harbour is also annexed : Savannah also being a port of great trade, a plan, extending from the Bar to the town, received from a gentleman who surveyed it, to whom we tender our acknowledgments. The harbour of Charleston, (S. C.) having, by a late storm, undergone a change, the former directions become useless, and those in the ninth edition are accompanied with a plan of the harbour taken since. This circumstance alone is sufficient, and establishes the fact, that Charts of our own coast should be published by ourselves, as information can be immediately derived from correct sources, contiguous to the boundaries described. We must also be allowed to digress from the subject matter, in replication to insinuations from some whose understanding has received no more cultivation than the *greenwood* of our forest, that European productions are superior to our own ; this remark may apply to themselves, but we disallow it, and are not willing to belong to that class. Sailing directions are also added for the following places, viz. River Demerari, Coast of Guyana, Gulf of Paria, Surinam River, Amazon River, Fernando Noronha, St. Roque, Point Pedras, Iquape, Seara, Jericoacoara Bay, entrance to Maranham, Caite, River Para, Rio Grande, Bahia Formosa, Treason Bay, River Paraiba, Tamarica Island, Olinda and Penambuco, Cape St. Augustine, Alexo Island, Porto Calvo, Rio Francisco, Vazabaris, Bahia, Bay of all Saints, Morro St. Paul, Camomoau, Ilhos, Porto Seguiro, Abrolhos Shoals, Spirito Santo, Cape Frio, Porto Alerto, Rio Janeiro, Marambaya and Gairoso, St. Sebastians, Barra de Santos, Cananea Iquape, Guarativa, Rio St. Francisco, St. Catharina, River Grande, Island of Trinadada, Cape St. Mary, Isle of Lobos, South Channel, Buenos Ayres ; general directions for vessels making the land, Western or Azores Islands ; remarks concerning the winds, weather, tides or currents, soundings, &c. in the River Plata, with instructions for navigating therein.

A revision of the Laws has also been noticed, as it frequently occurs in this city, that seamen, aided by their landlords, make a harvest out of the officers of their ships ; the Laws of this State, for the government of mariners are annexed. We would here caution the officers of vessels, as though they were approaching a coast which threatened inevitable destruction, to be extremely circumspect toward their seamen ; and when punishment is necessary, to inflict it expressly as the law points out ; as there are boarding-houses kept by *apologies for men*, who make it a business, on arrival of vessels, to induce seamen to prosecute their officers for some alleged abuse, and it often occurs that this business is reduced to a co-partnership, *one seaman swearing*

for another. These remarks are not intended for, neither will they give offence, to the honest tar, but point to those who *ship for wages only*, without admitting the least duty attached to them, and which the worthy seamen are compelled to perform through their neglect. The law to establish a board of wardens for the port of New-York, and for the regulation of the pilots and pilotage of the said port, passed April 9th, 1811, is also inserted, together with the additional law of April, 1813, which continues in force till the year 1818.

In this edition the forms of papers required from merchants and mariners in the Custom-House, have been carefully revised and conformed to the latest practice and establishment, with the list of duties on all articles imported. Other forms, important to seamen, have been annexed. Laws of the United States, passed since the last edition was published, are also inserted in this work. Several state laws, for the government of masters and seamen, and for the regulation of pilotage, which are included in this volume, render it of high importance to the merchant, commander, and seaman. These laws, independent of other information contained in the AMERICAN COAST PILOT, are sufficient to induce every mariner to furnish himself with the work. While it points out the statutes by which mariners are governed, it furnishes them with measures they may resort to, when injuries assail them, where ample satisfaction may be had.

In addition to the certificates which have been selected from more than one hundred, as testimonials of the merit of the AMERICAN COAST PILOT, we subjoin the following, which will, at one view, prove the absolute necessity this work should be used by every man who navigates the American coast. The first is copied from the *Newburyport Herald*, of *January 13, 1804*, attested by the captain.

“It must be a gratifying circumstance to the commercial world, that elements of navigation are found so accurate and complete, that the mariner can navigate his vessel into the most difficult harbours on the American coast, with no other pilot than what he can at all times carry in his pocket. It is, probably, an important fact, which speaks in flattering terms, that Captain *Patten*, of *Kennebunk*, who run into this harbour in distress, on Sunday evening, owes the preservation of his vessel, and the lives of his crew, to the instructions given in BLUNT’S AMERICAN COAST PILOT.”

The following is taken from the *Newburyport Herald* of *June 21, 1808*.

“A sloop belonging to *Dartmouth*, from *Kennebeck*, with lumber, in the violent blow of *Saturday*, upset 16 leagues from our bar, her deck load was washed off, when she righted, and came in by the assistance of BLUNT’S COAST PILOT, nearly full of water; the master’s name is *Gideon Ricketson*, who had only three men on board; they lashed themselves on deck, and in this situation came in.”

With such pretensions to public patronage, the editor is not backward in meeting the public scrutiny. The merits of his work are grounded on the best science in the country, and every exertion of long and laborious industry has been employed in executing its pages with the strictest accuracy and fidelity, that were due to its high promise of usefulness and emolument.

EDMUND M. BLUNT.

New-York, Corner of Fulton and Water-streets, January, 1817.

To Edmund M. Blunt, Author of the American Coast Pilot, &c. &c.

NEW-YORK, July 22d, 1816.

SIR,

Your valuable and unwearied labours to improve the navigation of the United States, render you the centre of every kind of intelligence that is interesting to mariners. You are therefore entitled to receive a communication concerning the height of the *Harbour Hill*, on Long-Island, and of the *Neversink Hill*, on the continent, near New-York, as they have been lately ascertained by the barometer.

We owe this information to Captain ALDEN PARTRIDGE, Professor of Engineering in the Military Academy at West-Point; who, pursuant to an arrangement made with me when I visited that national institution in December, 1815, has executed that service in a scientific and satisfactory manner. I had the pleasure to accompany this gentleman on both expeditions. I am satisfied, that, on these occasions, he has proceeded with the skill and accuracy, which have heretofore distinguished his observations to determine the altitudes of mountains in New-Hampshire, Vermont, and New-York. It is worthy of remark, that persons, distinguished for their taste and proficiency in science, were present, as well in Queens County as in Monmouth. There was a plenty of good and sufficient witnesses.

The *Harbour Hill*, the most elevated point of the ridge running lengthwise through Long-Island, from New-Utrecht to Southhold, distant twenty-six miles, in a north-easterly direction, has an elevation of *three hundred and nineteen feet* above high water mark; or, as the tide rises at its base about seven feet, three hundred and twenty-six feet above the level of the ebb.

The *Neversink Hill*, the highest maritime land of New-Jersey, was measured in several places. Captain PARTRIDGE travelled from knoll to knoll, accompanied by his enterprising cadets, to find the most lofty. The greatest elevation of those we visited, was *two hundred and eighty-one feet*. Upon revising the operation, he assures me there is no reason to suppose error, either in the instrument, the observation, or the calculation.

According to these computations, it appears that both the summits are considerably lower than popular opinion had estimated; and that the *Harbour Hill*, which had been supposed the less elevated, is, in fact, the higher ground of the two, by a difference of *twenty-eight feet*.

I leave it to you, to settle the effects of these conclusions, upon the reckoning of ships and vessels making the coast hereabouts; and beg you, at the same time, to accept the assurance of my sincere esteem and regard.

SAMUEL L. MITCHILL

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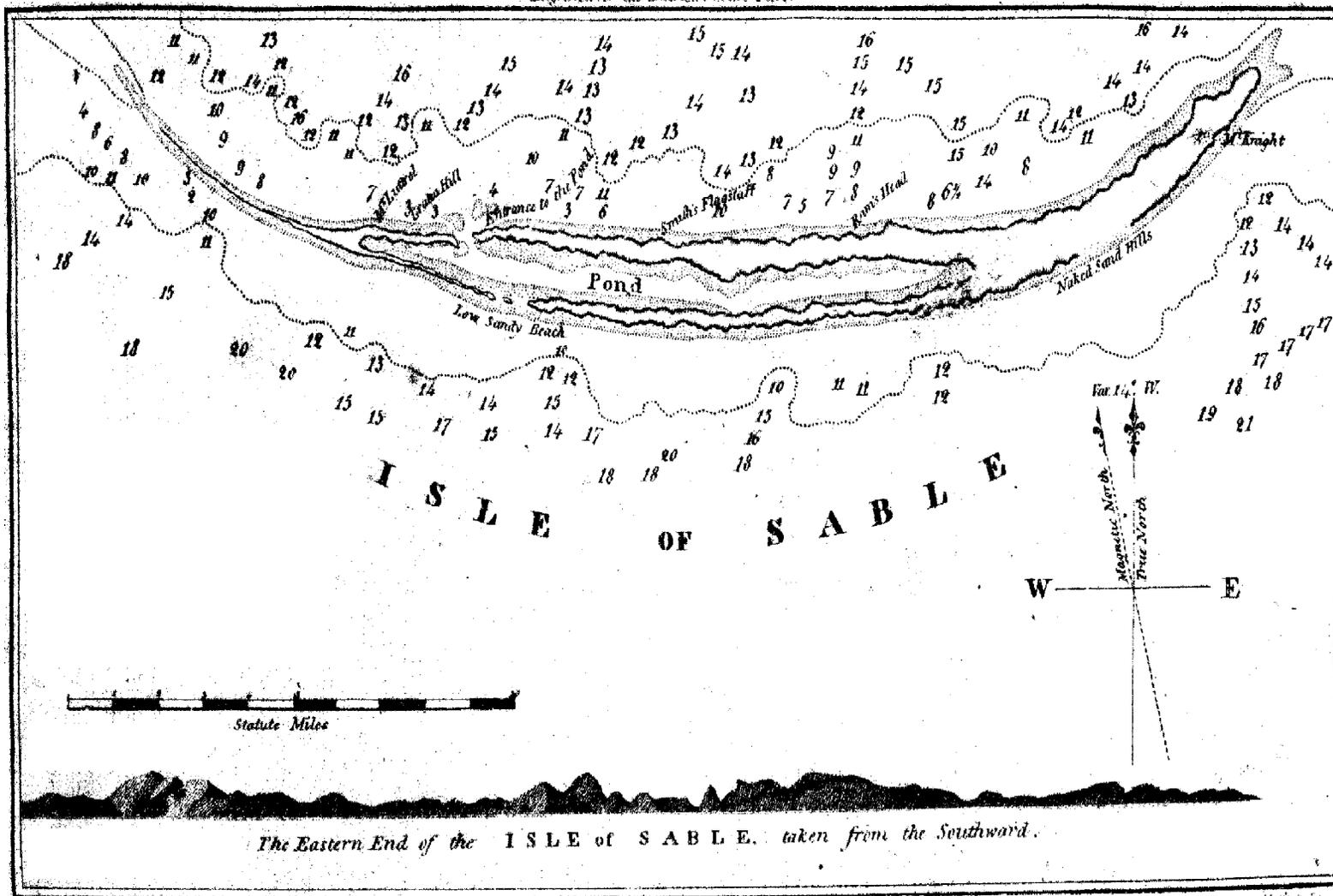
W. H. Rogers to

C. B. Smith

W. H. Rogers

C. B. Smith

Engraved for the American Coast Pilot.



The Eastern End of the ISLE of SABLE. taken from the Southward.

New York Published by Edward M. Blunt. 1816

BLUNT'S AMERICAN COAST PILOT.

FROM CAPE SABLE TO THE BAY OF FUNDY.

THE south end of the South Seal Isle bears W. by N. from Cape Sable, distant about 7 leagues; between them there are 17 fathoms. About $3\frac{1}{2}$ miles S. $\frac{1}{2}$ E. from the S. W. part of the South Seal Isle, and W. 7 leagues from Cape Sable, there is a rock above water, which appears to be very smooth; between this rock and the South Seal Islands, there are 9 fathoms. Off the west side of the island there are two small rocky islands; between them and the Seal Island there are 2 and 3 fathoms.

Between the South and the North Seal Islands, there is a channel of about $2\frac{1}{2}$ miles wide, with 15 fathoms in it. In going through this channel, you should keep nearer to the south than to the north island, because there is a shoal lies off about three quarters of a mile from the north island, on which there are 3 fathoms. The course through this channel is about north-west.

The Gannet Rock lies 13 miles N. $\frac{3}{4}$ W. from the S. W. part of the South Seal Island, and 8 miles S. by W. $\frac{1}{4}$ W. from Cape Forchu. About 5 miles W. $\frac{1}{4}$ S. from the Gannet Rock, 14 miles N. N. W. $\frac{1}{2}$ W. from the S. W. part of the South Seal Island, and 11 miles S. W. $\frac{1}{2}$ S. from Cape Forchu, there is a ledge of rocks, which appear about half ebb. Between the South Seal Island and the Gannet Rock, there are from 8 to 20 fathoms; between the Gannet and Cape Forchu there are 23, 28, 16, and 14 fathoms.

The Lurcher ledge lies 17 miles N. N. W. from the Gannet Rock, 11 miles N. W. $\frac{3}{4}$ W. from Cape Forchu, 15 miles S. W. by W. from Cape St. Mary, and 18 miles S. by W. $\frac{3}{4}$ W. from the S. W. part of Bryer's Island. Between Cape Forchu and the Lurcher, there are 28, 38, and 14 fathoms; and between the Lurcher and Bryer's Island, there are from 17 to 42 fathoms.

Trinity ledge lies 5 miles N. E. by E. from the Lurcher ledge, 11 miles N. N. W. $\frac{1}{4}$ W. from Cape Forchu, 10 miles S. W. by W. from Cape St. Mary, and 14 miles S. by W. from the south point of Bryer's island. Between Cape Forchu and Trinity ledge there are from 12 to 24 fathoms; between the ledge and Cape St. Mary there are 18 fathoms; between the former and Bryer's island, there are 42 fathoms; and along the shore, between Cape Forchu and Cape St. Mary, there are 11 and 12 fathoms. Cape St. Mary bears from Cape Forchu N. by E. $\frac{1}{4}$ E. distant 16 miles.

The south entrance of the Grand Passage lies 9 miles N. N. W. $\frac{1}{2}$ W. from the south part of Cape St. Mary: between them there are from 14 to 22 fathoms. The Grand Passage lies between Bryer's island and the S. W. end of Long Island; and the Petit passage lies at the N. E. end of Long island, about 8 miles distant from the Grand passage. About 2 miles S. W. from the S. W. part of Bryer's island, lies Black rock; and about a mile and a half further, in the same direction, there is a shoal, with only 3 feet on it. Between this shoal and Black rock there are 16 fathoms; between Black rock and the S. W. point of the island the water is shoal. About 3 miles N. W. by W. from the north entrance of the Grand passage, is the North West-ledge. The widest and deepest channel for ships that come from the southward for the Bay of Fundy, is between the North West-ledge and the West Seal isles; it is nearly 6 leagues wide. There is also a channel between Great Manan island and the point of the main land to the westward of it; this channel is about 4 miles wide.

Mount Desert rock lies 26 leagues N. W. by W. from the South Seal island,

17 leagues W. S. W. from the West Seal isles, 7 leagues E. $\frac{1}{4}$ N. from Woodenball rock, and 12 leagues E. $\frac{1}{4}$ N. from Manheigen island.

FROM SAMBRO ISLAND TO CAPE SABLE.

FROM Sambro island to the entrance of Le Heve, the course is W. $\frac{1}{2}$ S. and the distance 11 leagues; between them are Charlotte's and King's bays; the former is also called Margaret's bay. About 5 miles S. $\frac{1}{2}$ W. from the point of land which separates the two bays, lies Green island; it is small, and lies 7 leagues W. N. W. $\frac{3}{4}$ W. from Sambro island.

From the entrance of Le Heve to Hope island, the course is S. W. by W. $\frac{1}{4}$ W. and the distance about 11 leagues; between them lie Port Jackson, Liverpool, and Gambier harbours. Port Jackson is called by some Port Metway, and Gambier harbour is also called Port Mattoon. Between Port Jackson and Liverpool is Cape Metway.

From Hope island to the entrance of Port Mills, or Ragged Island Harbour, the course is W. S. W. $\frac{1}{4}$ W. and the distance $5\frac{1}{2}$ leagues; between them lie Stormont river, Port Mausfield, and Penton river. Port Mausfield is also called Port Herbert.

From the entrance of Port Mills to that of Port Haldermand, the course is S. W. by W. $\frac{3}{4}$ W. and the distance about 6 leagues; between them lie Buller bay, Port Campbell, and Port Amherst. Port Campbell is also called Port Roseway; this is deemed an excellent harbour.

From the entrance of Port Haldermand to Cape Sable, the course is W. $\frac{3}{4}$ S. and the distance 10 miles; between them lies Barrington bay. Port Haldermand is also called Port Latour.

The Brazil rock lies 5 miles S. $\frac{1}{2}$ W. from the point of land which separates the entrance of port Haldermand from Barrington bay; and $6\frac{1}{2}$ miles S. E. by E. from cape Sable; on this rock there are 10 feet; between it and cape Sable there are 17 fathoms.

Cape Sable is a low sandy point; it may be known by several sandy hills lying just within and by the land a little further in or to the northward of the sand hills, which appears higher.

The east end of Baron bank lies 9 leagues S. W. by W. from cape Sable; it thence extends W. S. W. $\frac{1}{2}$ W. 7 miles, is about 4 miles broad, and has 20 and 21 fathoms on it. Between this bank and cape Sable there are 33 fathoms. The tide flows here, on the change and full days of the moon, at eight o'clock. From cape Sable a reef of rocks extends W. by S. about 3 miles, on which the sea always breaks unless the water be very smooth.

Directions for Halifax harbour, taken from the printed Directions in the Custom-House at Halifax.

SAMBRO island and light house is in latitude 44 deg. 30 min. N. and longitude 63 deg. 32 min. W.

From the westward, bring the light to bear N. E.; if it bears more easterly, stretch to the southward till it bears N. E. and as much more northerly as you please, there being no shoal or ledge to the southward; then keep it open on your larboard bow; give it more than a mile and a half birth, as much more as you please.

Note.—The western ledges lie from the light S. W. distant two miles, the other W. S. W. about one league; the eastern ledges lie in a range nearly, some above water; the outermost, one mile and a half from the light, bearing from it E. N. E.

When the light bears north, distant about 2 miles, run N. E. 4 miles, then

north will carry you to Chedabucto Head, at a proper distance clear of all danger.

When a-breast of Chedabucto Head, run N. $\frac{1}{2}$ W. for the south point of George's island.

When within $\frac{1}{2}$ a mile of George's island, you may enter the harbour west of it in 12 fathoms, or east of it in 15.

In passing between Sandwich point and Meagery's beach, run rather nearest the point, to shun a shoal which runs off S. W. from the beach.

There is also a shoal lying one mile south of Sandwich point.

Coming from the eastward, run for the light, and you cannot fail seeing Chedabucto Head as you open Halifax harbour; the light being 4 miles distant from the Head to the S. W.

FORT AYLSBURY.

YOU have regular soundings and deep water as far up as point Bruce, where a rocky shoal extends near one third of the way across the channel; when you are a-breast of it, steer for the small island on the eastern shore, and under a short sail, haul round its west side, giving it but a small birth, to avoid a rocky flat running from the western shore, within the distance of 50 fathoms from the isle. You may anchor under the west side of the isle, or further up. There is a passage, at high water, from this to the Bay of Rocks, for boats and small craft only.

Port Hood is situated on the north-western extremity of the island of cape Breton, bears by compass north 4 degrees east, distant 20 miles from the north entrance of the gut of Canso, and east 8 deg. south $17\frac{1}{2}$ miles from cape George. The flood tide sets from the northward at the rate of $1\frac{1}{2}$ mile an hour: and on the days of full and change, it is high water at half past seven; common spring tides rise about 5 feet. To sail in, keep your course to the eastward, till point Emerson is on with the gut of Canso; this direction will lead you into no less than 6 fathoms; and close by the end of the sand flat which runs from the south-east part of the peninsula.—here are two small remarkable white beaches at the bottom of the cliffs; when the southermost bears W. by S. you may haul round to the anchorage in 4 and 5 fathoms, sand muddy bottom, where ships may lie well sheltered from all winds. The water on the flats appears very white, and breaks when the wind blows strong from the southward. There is a passage for small vessels between point Susannah and Henry isle.

CONVEY HARBOUR.

THIS harbour is sheltered by Seymour isles, and has two entrances. Sailing into the westernmost, in order to avoid Henry ledge, keep the starboard shore on board; and on your larboard tacks, observe not to borrow nearer than 6 fathoms, which will keep you clear of the tail of the east reef, and of a small sunken rock about a cable's distance to the N. E. from it. The 12 feet shoal lies 220 fathoms distance from Park isle, and E. by S. 900 fathoms distance from Fish beach. To sail into the western entrance, come not nearer Seymour isles than 6 fathoms: shaping your course to the northward, until you open the North Stage mid-channel; then steer for it, and you may anchor in 6, 8 and 10 fathoms, good holding ground.

MILFORD HAVEN.

THE head of the Bay Chedabucto is surrounded with sand flats, but none extend further from the shore than 200 fathoms, excepting Stony isle shoal, running off south near half a mile, and meets Toby-head shoal, which makes a bar of $3\frac{1}{2}$ fathoms across the channel into Milford Haven. At the beginning of the flood and ebb, the tide streams with great velocity in the Narrows between Stony

isle and the western shore. Within the harbour, between Eliza point and the beach, there is a bar of $3\frac{1}{2}$ fathoms, above which is deep water for several miles up into the country. Salmon river is fit only for the smallest boats.

WHITE HAVEN.

WHITE-HEAD island is very high, and the Rocks that surround it, with those off the entrance of White Haven, westward to Cape Martingo, inclusively, are high, and remarkably white also. There are several passages between these rocks—the best is between the Gulf rock and the West breaker. You may sail close by Turtle rock; then shape your course N. W. by N. keeping near Three-top island, to avoid a ridge of sunken rocks which extend from the eastern shore one third of the way across the channel, and run up to anchor in 10 and 12 fathoms, muddy bottom.

Port How is a good snug harbour, but there are several breakers in the entrance. To sail into it, bring the body of Middle isle to bear N. $\frac{1}{2}$ E. then steer for it till you are above Iron-Head, to which, on account of some rocks southward of it, you are to give a good birth; and you may anchor under Middle isle in 7 and 8 fathoms, good holding ground, or in the north-west branch going up to it; keep nearest the western shore. Crow harbour, or the south shore of Chedabucto bay, W. N. W. 4 leagues from Canso, has deep water, with good bottom, and may afford reception for 2 or 3 ships of war. The best channel is on the west side of Rook isle, between it and Cerby, which is a shoal extending eastward about 70 fathoms from 2 small red heads on the western shore. Isle Rook is bold to.

Philip inlet is shoal, and lies open to the north winds. A small schooner may lie sheltered within White point in Shallop cove.

SANDWICH BAY.

THERE are safe and easy passages for the largest ships of war between the rocks, ledges, and breakers, about the entrance of this bay, leading up to the several harbours branching out from it. Country harbour is navigable a great way up, and affords good anchorage in mud bottom. Port Hichinbroke has also sufficient depths of water for any ship and good holding ground. Port Montagu lies very convenient for carrying on the cod fishery. You may lie very snug within Island harbour, in 7 or 8 fathoms, mud bottom: and commodious for going to sea with almost any wind. The south end of William island is shoal for a quarter of a mile. A rocky reef extends about half a mile S. S. E. from Cape Mocodome. Pollux shelves to the N. W. but is bold too on the south and east sides. From Orpheus ledge it is shoal above a mile to the S. S. eastward, and a quarter of a mile to the N. N. westward. The flute, a sunken rock, lies S. E. 5 deg. S. 2 miles from Cape Mocodome, and N. E. b. E. one mile and three quarters from Pollux, and S. W. b. W. $\frac{1}{2}$ W. $4\frac{1}{4}$ miles from Green island. The Fiddle, another sunken rock, lies S. E. near 4 miles from Cape Mocodome, and E. $\frac{1}{2}$ S. 3 miles from Pollux. The bassoons (two breakers) lie south above $1\frac{1}{2}$ mile from Green island, and E. b. N. $\frac{1}{2}$ N. $5\frac{1}{2}$ miles from Pollux.

Port Bickerton is a safe little harbour. The south end of Richard isle is shoal for about the distance of a cable's length. Hummock head is surrounded with high black rocks—its interior part is barren: a ship may anchor within the head on the eastern shore. In running further up, keep the starboard shore on board to avoid Murray's ledge, part of which is dry at low water.

RIVER St. MARY.

AT the entrance the soundings are irregular, and the bottom rocky; it is navigable for sloops and schooners by a narrow channel, winding through extensive flats, part of which, at low water, are left dry, leading to the fresh water falls.

HOULTON HARBOUR.

FLINT ISLE is surrounded with shoals and breakers. From John isle there are rocky reefs stretching out near one mile south and S. E. You may sail on either side of Mill rock, it being steep too. Clamb rock is dry at low water in spring tides. The best channel is between it and the bluff head on the east shore.

LISCOMB HARBOUR.

THE rocks and breakers extending from Cape Amelia, are observed at a considerable distance, as the sea breaks over them at all times. Coming from the eastward, be careful of a sunken rock lying S. W. 1 mile from Cape Amelia. Within the entrance of the harbour there is a blind rock, lying three quarters of a cable's length from Point Pitt. You may anchor any where in this harbour, in 5 or $5\frac{1}{2}$ fathoms, and good holding ground.

PORT STEVENS.

THERE are some ledges and breakers which lie scattered from the E. to the S. E. within 3 miles of Cape Philip. The best channel is between Taurus and another shoal extending about half a mile S. E. from White Point, to which come no nearer than 5 fathoms, whence you may sail through between Breynton island and Duck isle, and anchor at pleasure in the harbour.

WHITE ISLANDS HARBOUR.

THE sunken rocks, which extend about half a mile S. S. E. from the eastern end of White islands, are steep to, and must be avoided by keeping midchannel between them and Crane island. These islands being remarkably high and iron bound, with white rocks, may be distinguished from the offing.

FLEMMING RIVER.

THE channel into this river being rocky and intricate, is scarcely fit for any but fishing and other small craft.

BEAVER HARBOUR.

THE Beaver isles are very remarkable to ships sailing along the coast, particularly Bald isle, the westernmost, which is a high and darkish barren rock. A shoal spreads easterly near 200 fathoms from the eastern extremity of South isle; and about three quarters of a mile N. $\frac{1}{2}$ W. from it, lies Bounce, a small sunken rock, with 15 fathoms close to it on all sides; and further, in N. 3 deg. E. $1\frac{1}{2}$ miles distant are the Twins.

Black rock, in the fair way going up the harbour, has on its side 13 fathoms, and 16 on its westernmost side; you may anchor in 8 fathoms within Edward and Meadow isles. The Red Cliff on the south end of Edwards' isle makes this harbour remarkable from the offing, being the only one between Egmont harbour and Liscomb. Sailing into Mackarel basin, give birth to the shoal which extends northerly above a cable's length off the beach, on the east side of its entrance. The interior part of this beach is so steep to, that a vessel of 100 tons may, at all times of tide, lie afloat with her side touching. There are 3 fathoms and mud bottom, throughout the basin.

PORT PARKER.

AT the entrance of this port the bottom is uneven and rocky within. Bridge cove is good anchorage in 3 and $3\frac{1}{2}$ fathoms, sound bottom.

PORT NORTH.

OFF Cape Hide are two ledges, linked and surrounded by sunken rocks, commonly named Pegasus Wing, to which come not nearer than 12 fathoms; the best way into this harbour is on the west side of them, and thence steer for Rock isle, which is steep to, and run up through between Banbury and Guilford isles, where you will have from 9 to 14 fathoms. N. 10 deg. W. 570 fathoms distant from the N. E. end of Banbury isle, and E. by N. 2 deg. N. from Stony island, lies a sunken rock, on the shoalest part of which there are no more than two feet; when above it, you shape your course north-easterly up the river, and anchor at pleasure in 7, 8, and 9 fathoms, mud bottom.

PORT PALISSER.

OFF the entrance of this port E. S. E. $7\frac{1}{2}$ deg. S. 500 fathoms distant from the Hug, lies a sunken rock, with deep water on all sides around it; in sailing thence up the harbour, the soundings are irregular from $4\frac{1}{2}$ to 10 fathoms. The best anchorage is within Hugh and Palisser islands, where you have from 6 to 8 fathoms, mud bottom: and the best channel leading to it is between them.

SPRY HARBOUR.

CAPE SOUTHAMPTON is high, rocky and barren; two trees on the top make it very remarkable from the eastward and westward. Cape Spry is lower, and likewise barren; and on account of two flat stony isles and several breakers extending south-westerly, not safe to approach nearer than 7 fathoms. You may sail up the harbour on either side of Cornish rock; S. S. E. 2 deg. E. 630 fathoms distant from this rock, and E. N. E. 2 deg. E. from Cape Spry, lies a breaker, on which are 4 fathoms. Aries is a blind rock, which shews itself at low water spring tides, and is steep to on all sides; it lies N. N. E. 4 deg. $\frac{1}{2}$ E. 240 fathoms distant from Point Richard. From the anchoring place in 7 and 8 fathoms, mud bottom, you have a passage for small vessels, leading through within the islands into Deane harbour.

DEANE HARBOUR.

TO sail into the harbour, keep mid-channel between Cape Southampton and the Calibian ledge. Above Urn isle is good anchorage in 5 and 6 fathoms stiff blue clay.

SAUNDERS HARBOUR.

EXCEPTING the shoal and a breaker, east one mile off Comptroller's ledge, this harbour has a fair entrance, and regular soundings all the way up, and good anchorage in stiff blue clay.

TANGIER HARBOUR.

TO avoid Calibian ledges, and the shoal half a mile to S. S. E. keep the shore of Tangier island on board; you may anchor any where above Fisher's Nose in 4 fathoms, mud bottom.

KNOWLES HARBOUR.

YOU may sail on either side of Bold rock, the N. E. side of which is steep to, but has a shoal extending from its S. W. side about 2 cables' length. From Hiron island there is a ledge and a shoal running easterly 3 quarters of a mile. Centaur is a blind rock, off the east point, at the entrance of Charles river,

which shews itself at a quarter ebb. The bottom is a stiff blue clay throughout the harbour.

KEPPEL HARBOUR.

OWL HEAD makes this harbour very remarkable from the south-eastward. In the offing the shore appears in white spots from its entrance upwards. The best channel is on the west side of Hiron island; there is no danger but what shews itself, excepting Hervey breakers, on which are $3\frac{1}{2}$ fathoms, and which break only in bad weather. Sailing up, you shoal your water gradually from 17 to 5 and 4 fathoms, muddy bottom.

EGMONT HARBOUR.

TO sail through the best channel into this harbour, on the east side of Thorn shoal, on which there are 11 feet lying S. E. b S. 300 fathoms from Point Darby, shape your course towards M'Bride point, which is bold to, observing to keep it open with the north end of Little Peninsula; and when the highest part of Winter rock bears south, you will be on the east side of Thorn shoal; whence sail northwards, until you shut in Little Peninsula with M'Bride's point, and steer north-westerly for Black rock, to avoid the dry sand flats on your starboard hand, within a ship's length of which the water deepens to 5 and 6 fathoms; whence you may run up to anchor at pleasure. In Watering cove, or further up, there is good and well sheltered anchorage, without the harbour, between Isle James and Isle Worth. Bank's inlet leaves between the extensive dry flats, at its entrance, but a narrow and winding passage for the smallest fishing crafts.

CATCH HARBOUR

HAS a bar across its entrance with 9 feet at low water, and it breaks when the wind blows upon the shore; it is frequented by small vessels only.

SAMBRO' HARBOUR.

COMING from the westward, the best passage is between Cape Palisser and the Bull rock; from the eastward, you may run up between Sambro' island and Inner ledge. The anchoring ground is within the Isle of-man, in 3 fathoms, mud bottom. The gut leading to Loudy bason has from 2 to 3 fathoms, and is very narrow.

BRISTOL BAY.

ON the days of full and new moon it flows till three quarters past 7 o'clock, and the common spring tides rise eight feet. To run up to anchor in Shuldum harbour, when coming from the westward, bring Point Mackworth to bear north, and pass between White rocks and the rocks which lie off Point Mackworth. There is a good channel also between Cape Palisser and Hervey isle, with good anchoring ground in 7 and 8 fathoms.

PROSPECT HARBOUR.

THE soundings on the entrance of the harbour are irregular. About two cables' length east of Dormon rock is a breaker, with 3 fathoms on it. There is good anchorage above Pyramid isle for the largest ships, and within Betsey's isles for small vessels, in $4\frac{1}{2}$ fathoms, stiff blue clay.

PORT DURHAM

HAS a sufficient depth of water, but the entrances into it are very narrow. Sailing in through the east passage, which is the best, give birth to the ledge extending E. S. E. half a mile from Inchkeith island.

LEITH HARBOUR.

From Inchkeith island E. S. E. about $1\frac{1}{2}$ mile lies the Hog, a sunken rock, on which there are but 6 feet; it may easily be perceived by a rippling of the tide in fair weather, or by a swell and breaking of the sea when the wind blows on the shore; there are good channels on both sides of it. The channel on the west side of the Hog is more difficult, on account of the ledge extending E. S. E. about half a mile from the eastern extremity of Inchkeith island.

CHARLOTTE BAY.

IN this bay are several harbours fit to receive armed ships of any rate. The high lands at Haspotageon, on the west, between it and King's bay, are very remarkable at a considerable distance in the offing. The shores on the entrance are high white rocks, and steep to: on the west side, coming in, you perceive a Dog, (a ledge,) almost covered and surrounded with breakers, which lies S. by E. 3 deg. E. near $1\frac{1}{2}$ mile distant from the south end of Holderness island, and bears W. 3 deg. S. from the southernmost point of Inchkeith island. You have good channels on both sides of the small island which shelters the south west harbour. In Fitzroy river, ships may lie land-locked in 5 or 6 fathoms; sailing into it lies Black ledge, with deep water close to it, and lying S. W. $\frac{1}{2}$ S. 300 fathoms distant from Warren-head, appears at all times of tide. Vessels may ride half a mile below the falls of Effingham rivers. In Delaware river the largest ships may lie in the greatest safety. Convey cove has also a sufficient depth of water for any ships, and sheltered from all winds. Sailing into it, keep nearest the starboard point of the entrance. Within Hertford bason you have from 8 to 10 fathoms throughout. Mecklenburg isle affords a commodious shelter; and further up, any where within Strelitz isles, you may anchor very secure.

MECKLENBURG BAY.

THIS bay is full of the finest harbours; and there are deep passages within almost every island in it, with convenient anchorage for all kinds of shipping.

To sail from the southward into Prince harbour, when you are as high up as Royal George island, steer for Robinson's rock, which is always above water, until the north point of Louis island opens with the north end of William Henry island, whence you may shape your course to any part of the harbour, and anchor at pleasure in 4, 6, or 9 fathoms, good holding ground.

There are several good channels leading into the Royal arm; about the middle part of it, S. W. $\frac{1}{2}$ S. 300 fathoms distant from the south end of Jarvis isle, and E. $\frac{1}{2}$ S. distant 600 fathoms from the south point of Barrington Island, lies a ledge, dry at low water.

The navigation into Cumberland arm, Chester, and the other harbours in this bay, is so easy and safe, that the sole inspection of the draft will give every information necessary on the subject.

LUENBURGH.

THERE are good passages in Luenburgh on either side of Prince of Wales' island; sailing in on the east side, keep mid-channel, in order to avoid the shoals which extend from the north part of the island, and from Colesworth point. Sailing in through the best channel, on the west side of the island, incline to

wards the Ovens; then shape your course N. N. W. $\frac{1}{2}$ W. over towards Battery cliff, in order to avoid the Cat, which lies N. b. E. 1 mile distant from the Ovens, and on which are but 8 feet: and keeping the fort well open with Moreau point, you may safely run up to anchor in 3 fathoms, and good holding ground.

KING'S BAY.

THIS bay is parted from Charlotte's bay by a neck of land about 3 miles over, whereon the highlands of Haspotageon stand, whose appearance, in three regular swellings, render it very remarkable at a great distance in the offing. Between the islands are good channels, leading up into several fine harbours within the bay. The outer breaker lies N. N. E. 1 mile and two thirds distant from the south east end of Duck island, and W. 7 deg. S. $3\frac{1}{2}$ miles distant from the S. W. point of Green island. From this, about 3 miles northward, lies the Bull (a blind rock, visible at three quarters ebb) bearing W. S. W. 1200 fathoms distant from the S. W. end of Flat island, and S. S. E. $\frac{1}{2}$ E. $2\frac{1}{2}$ miles distant from the west point of Royal George island. And further up W. b. N. 8 deg. N. 400 fathoms distant from West point, lies Rocky shoal, within which and Royal George island is deep water. The Coachman is a blind ledge within Mucklenburg bay, visible at low water only. The east ends of Royal George's and Flat islands in one, will lead you clear on the east side of it. The west end of Iron bound island open with the west point of the Little Tancook island, will clear you on its south side; and Governor's island open with West point, carries you safe on its north side.

GAMBIER HARBOUR.

ON both sides of Portsmouth rocks, which are always above water, you have deep channels, and of a sufficient width for ships to turn into the harbour; with a leading wind you may steer up N. W. until you bring Saddle island to bear S. W. b. S. and haul up S. W. to the anchoring-ground. Small vessels may pass on the west side of Matoon island, between the Bull and the western shore.

PORT MANSFIELD.

GREEN-ISLAND, without the entrance of this port, is remarkable from the westward, having no trees on it. The channel leading to the anchoring ground in 3 fathoms, is not more than 60 fathoms wide, between Bridge's rock and Stonny beach, above which are flats with narrow-winding channels through the mud.

PORT MILLS.

The entrance of Port Mills has a very rugged appearance, several ledges and breakers lying scattered before it. Coming from the eastward, when you have passed Thomas' island, which has high rocky cliffs on the east side, and sunken rocks, extending in a S. W. direction near one mile from its southern point, keep a good look out for the Tiger, a breaker, lying south, half a mile from Rug point which you will leave without you, and haul up N. W. b. N. sloping your course along Muffat island, to avoid the shoal stretching midway over from the eastern shore. You are in the best of the channel when Centre isle is just open with Muffat island: on these marks you may run up to the North arm to anchor. Small vessels may be well sheltered within Cubb bason. Coming from the southward, or from the westward, you have deep water on either side of Gull rocks, or between the Bear and the Tiger.

FORT CAMPBELL.

CAPE ROSEWAY is a high cliff of white rocks, the top of which is partly without wood. The west side of Roseneath island is low. South $4\frac{1}{4}$ miles distant from the Cape, lies the Jig, a rocky reef, with no more than 6 feet, between which and the island you have 4 and 5 fathoms. The Bell, a rock, always visible, and bold too, lies S. E. 3 deg. S. 1100 fathoms distant from Sundrich point, and N. E. b. E. above 2 miles from Cape Roseway, in the fair way from the eastward into the harbour. The channel is clear within a cable's length of both shores, up to the anchoring-ground, in good water, and mud bottom. Sandy flat, on the east shore, at the Narrows, has 5 fathoms close to; between Roseneath island and the western shore it is quite shoal.

FORT AMHURST.

CAPE NEGRO ISLAND, which divides the entrance into two passages, is very low about the middle, and appears like two islands, the Cape itself remarkably high, rocky and barren. Coming from the westward, in hauling round Point Jeffrey to avoid the ledges, blind rocks and shoals extending easterly from the western shore, shape your course N. N. E. towards the Cape, giving the Savage rocks a birth of 3 cable's length, until you open Davies isle, which is the westernmost and largest at the head of the harbour, a sail's breadth with Point William, and run up in that direction, observing to keep clear of a sunken rock, which lies E. S. E. from Point William, about 300 fathoms from the shore. Fishery beach is bold to. To sail up through the east passage keep Gray rocks on board, and steer up N. W. for Point John, until you can see across the isthmus in the middle of Cape Negro Island, and have passed the Budget, a blind rock, which lies in a direction between the Whale's back and the Gray rocks, on both sides of which there is deep water; whence haul over to the westward, keeping the shore of the island, or the shoals, which extend half the distance over from Point John to the island. When you have opened the small islands at the head of the bay, shape your course N. N. W. to the anchoring-ground.

FORT HALDIMAND.

TO sail into it, coming from the westward, continue your course easterly until you have Brehm isle a ship's length open to the eastward of North rocks; thence you may steer northerly for Isle George; and when you come up within the distance of two cables from its south end, incline to the westward in a direction with the western extremity of Pond Beach, until you open Prospect House on the north side of the northernmost Mohawk Lodge, and then haul into anchor in 3 fathoms, mud bottom.

About midway between Baccaro point and the South ledges, lies the Folly, a sunken rock, within which and the western shore is a channel of no less than 6 fathoms.

Vultur, a dangerous breaker, lies S. W. b. W. near 2 miles from Baccara Point. Brazill is a sunken rock, with 10 feet at low water; it lies E. b. S. $\frac{1}{4}$ S. 3 leagues from Cape Sable, and S. S. W. $3\frac{1}{2}$ leagues from Cape Negro.

ST. MARY'S BAY.

FROM Cape St. Mary upwards into the bay, the south shore is low, and runs out in sandy flats for near three quarters of a mile. The north shore is surrounded by high steep cliffs, with deep water close under them. Mid channel, and about two thirds up the bay, lies a rocky bank, with 4 and $4\frac{1}{2}$ fathoms; and on each side of which are channels of 12 and 15 fathoms, mud bottom. The entrance of the River Sissibou is shoal, and within has a narrow channel of 2 fathoms.

Opposite to Sissibou lies Sandy Cove, where vessels, when it blows hard, may ground on soft mud, and be sheltered from all winds.

Petit Passage is 280 fathoms wide on its narrowest part, and has from 20 to 30 fathoms; its shores are bold too. On the west side near the northern entrance, lies Eddy cove, convenient for vessels to anchor out of the stream of the tides, which run so very swift, that without a fresh gale of a leading wind, no ship can stem it. W. N. W. $\frac{1}{2}$ N. $3\frac{1}{2}$ miles distant from the N. W. point of the northern entrance of Grand passage, lies the north-west ledge. Coming in from the southward, the widest and deepest channel is on the west side of Belly's island. To avoid the 9 feet shoal (north distant 300 fathoms of it) haul close round the island, or give it a birth of 4 cables' length ere you bear up for the anchoring ground off the houses on the western shore. The Black rock is $1\frac{1}{2}$ mile distant S. S. W. from the S. E. end of Bryer island: and near 2 miles further on the same direction is a shoal with 3 fathoms, between which and the rock are 16 fathoms. Trinity ledge lies S. W. $\frac{1}{2}$ S. distant 6 miles from the southernmost point of Cape St. Mary's. When the tide is out, three stones appear above water; it is near one quarter of a mile in length, and as much in breadth; and it tails off half a mile to the westward, deepening the soundings gradually.

ANNOPOLIS ROYAL.

THE shore on both sides the Gut of Annapolis is iron bound for several leagues. From the south-west end of Long-island, a range of hills rise gradually to a considerable height to the entrance of the gut, where it terminates by a steep fall. Here you have from 25 to 30 and 40 fathoms, which, as you draw into the bason, shoal quick to 10, 8, and 6 fathoms, mud bottom. The ebb and flood stream through at the rate of 5 knots, and cause several whirlpools and eddies. The truest tide is on the western shore, which is so bold too, that a ship might rub her bowsprit against the cliffs, and be in 10 fathoms. Point Prim runs off shoal about 30 fathoms. Ships may anchor on the east side of the bason, or run up towards Goat island; observing, when within the distance of half a mile from it, to stretch two thirds of the way over the larboard shore, until you clear the island which is shoal all round, and thence to keep mid channel up to the town.

Sailing Directions for Sable Island, the Coast of Nova Scotia and Bay of Fundy.

ON the days of the new and full moon, it is high water along the south shore of the island at half an hour after 8 o'clock; and it flows till half an hour past 10 o'clock on the north side, and till near 11 o'clock in the pond; common spring tides rise 7 feet perpendicular, and neap tides 4. The flood sets in from the S. S. W. at the rate of half a mile an hour; but it alters its course, and increases its velocity near the ends of the island: at half flood it streams north, and south at half ebb, with great swiftness across the north-east and north-west bars, therefore dangerous to approach without a commanding breeze. The north-east bar runs out E. N. E. about 4 leagues from the eastern extremity of the island, all which is very shoal, having in few places more than 2, 3, or 4 fathoms; whence it continues east and E. by S. deepening gradually to 12, 15, and 18 fathoms at the distance of 8 or 10 leagues, and shapes to the south and south-east, sloping gently to 60 and 70 fathoms. To the northward and eastward it is very steep; and in a run of 3 miles, the water will deepen to 130 fathoms. Abreast the body of the isle the soundings are more gradual. The shoal ground of the northwest bar, shapes to the westward, and deepens gradually to 70 fathoms, at the distance of 20 or 25 leagues from the isle, and winds easterly and southerly until it meets the soundings of the north-east bar. The quality of the bottom in general, is very

fine sand, with a few small transparent stones: to the northward, and close to the north-east bar, the sand is mixed with many black specks; but near the north-west bar, the sand has a greenish colour. The north-east bar breaks in bad weather, at the distance of 8 and 10 leagues from the island; but in moderate weather, a ship may cross it, at 5 leagues distance, with great safety, in no less than 8 or 9 fathoms; and if the weather is clear, the island may be seen thence very distinctly from a boat. The north-west bar breaks in bad weather, at 7, and sometimes at 8 miles from the island; but when the sea is smooth, ships may cross it, within the distance of 4 miles in 7 fathoms.

Along the north and the south sides of the island are many spits of sand, extending nearly parallel, and within a mile from the shore. Vessels may anchor on the north side of the island, between these spits, and not be liable to be drove off by southerly winds. On the south side it is boldest off the body of the island, having 10 and 12 fathoms within a mile from the shore: but towards the bar it is more shoal, and dangerous to approach, for the currents, which are uncertain, are in a great degree influenced by the winds which have preceded. The surf beats continually on the shore, and in calm weather is heard several leagues off. Landing on this island with boats is practicable on the north side, after a continuance of good weather only. The whole island is composed of fine white sand, much coarser than any of the soundings about it, and intermixed with small transparent stones; its face is very broken, and hove up in little hills, knobs, and cliffs widely heaped together, within which are hollows and ponds of fresh water, the skirts of which abound with cram-berries the whole year, and with blue berries, jumpers, &c. in their season, as also with ducks, snipes, and other birds. This sandy island affords a great plenty of beach-grass, wild-peas, and other herbage, for the support of horses, cows, hogs, &c. which are running wild upon it. It grows no trees; but abundance of wreck and drift wood may be picked up from along the shore for fuel. Strong northerly winds shift the spit of sand, and often even choke up the entrance of the pond, which usually opens again at the next southern blast. In this pond are prodigious numbers of seals, and some flat fish, eels, &c.; and on the south-west side lies a bed of remarkable large muscels and clams. The south shore is, between the cliffs, so low, that the sea breaks quite over in many places when the wind blows on the island. The Ram's-head is the highest hill on this island; it has a steep cliff on the north-west, and gently falls to the south-east. The naked sand hills are 146 feet of perpendicular height above the level of high water mark, and always appear very white. Mount Knight is in the shape of a pyramid, situated in a hollow between 2 steep cliffs. Mount Luttrell, is a remarkable hummock on the top of a large swelling in the land. Gratia hill is a knob at the top of a cliff, the height of which is 126 feet perpendicular above high water mark. The Vale of Misery is also remarkable as is Smith's Flag-staff, a large hill, with a regular ascent every way. From the offing, the south side of the island appears like a long ridge of sandy cliffs, lessening towards the west end, which is very low.

The Nova Scotia Banks extend nearly 70 leagues, in a westerly direction, from the Isle of Sable; they are from 20 to 25 leagues wide; and their inner edges are from 14 to 18 leagues off shore; they are intersected by narrow winding channels (the bottom of which is mud) running north-west and south-east. Between these banks and the shore, are several small inner banks, with deep water and muddy bottom. The water deepens gradually from the Isle of Sable, to the distance of 22 leagues, in 50 fathoms, fine gravel; thence proceeding westward, the gravel becomes coarser; at the distance of 23 leagues, and south from Prospect harbour, you have from 30 to 35 fathoms, large stones; and continuing westward to the western extremity of the banks, the soundings are rocky and shoal to 18 and 15 fathoms, Cape Sable bearing N. by W. distance 15 leagues.

The south-west extremity of bank Quero lies 26 miles E. N. E. $\frac{1}{2}$ N. from the east end of the Isle of Sable. This bank extends E. by N. 35 leagues in width; its shoalest part is about 5 leagues from its eastern extremity, in 16 and 18 fathoms, slimy sand and clams; from whence it deepens regularly every way to 60

and 70 fathoms towards the edges of the bank. This bank is steep to: and from its soundings on the north side, you will fall immediately in 90 or 100 fathoms, black mud, and in 120 fathoms on the south side.

[See *CHARTS* of the before-mentioned Coast, published by E. M. BLUNT, 1808.]

REMARKS.

The eastern extremity of Great Breton Island (which ships sailing from Europe to Nova Scotia, in general choose to make) appears on the sea shore, and some way back into the country, barren and rocky: and the tops of the hills being so much alike, have nothing remarkable. The light house and town of Louisburgh, on making that part of the island, are immediately seen. The coast to the westward continues rocky on the shore, with a few banks of red earth, and appears less barren.

Cape Blancherotte is a remarkable cliff of whitish earth, lying just on the east of the isle of Saint Esprit (which is a small woody island, 2 miles distant from the shore with a breaker 1 mile and a half without it) from whence the land is low to the Richmond Isles, on which appear several small banks of bright red earth, and beaches between them. Albion cliff is rocky, and remarkable high and steep.

In sailing through the gut of Canso, ships pass between it and the isles of Canso, which are surrounded with many low white rocks, and breakers extending from them. The south shore of the bay of Chedabucto is iron bound and steep too; and the north shore mostly red cliffs and beaches. From the southern entrance northwards through the gut, the west shore is high, rocky and steep; and the east shore is low, with beaches to the north end of the gut; whence to port Rood, there are high, rocky red cliffs; and on the western shore of George's bay, between the gut and cape George, are several very remarkable cliffs of plaster, which appear extremely white. Cape George is iron bound and very high, its top being 420 feet above the level of the sea; about half way between it and port Luttrell lies the barn (a remarkable high large rock) from the resemblance to which, it takes its name; and from the barn to port Luttrell, Pitou harbour, Tatmegoushe, Ramshage, Linzee river and bay Vette, and as far as port Chediack and Cocaigne, the shore is bound with red cliffs and beaches under them. The inland country between Frederick's bay and the bason of Cobequid, appears remarkably high to vessels in the offing.

From Canso, westward to Torbay, the shore makes in several white rocky heads and points; here the country is much broken; and near White-head, many white stones appear from the offing, like sheep in the woods; thence to Liscomb harbour there are banks of red earth and beaches, and from Liscomb harbour to the rugged islands (excepting the white islands, which are white rocks) the capes and outer islands are bound with black slaty rocks, generally running out in spits from east to west; and from the rugged islands to the Devil's island, at the entrance of the harbour of Halifax you have several remarkable steep red cliffs linked with beaches.

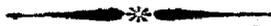
From Halifax, westward to Charlotte bay, the country from the offing is very rocky and broken; the shore is steep too, and bound with white, rocky cliffs. The high lands of Haspotageen, on the east side of Mecklenburgh bay, are very remarkable; from whence proceeding westward, the rocks which surround the shore are black, with some banks of red earth. Between cape Le Haeo (which is a remarkable promontory, bald on the top, with a red bank under it, facing the south westward) and Port Jackson, there are some hummocks within land, about which the country appears low and level from the sea; and on the shore white rocks and stony beaches, with several low bald points, from whence to Fort Campbell the land is woody. About the entrance of Port Haldimand, and within land, are several barren spots, which, from the offing, are easily discerned; from whence to Cape Sable the land appears level and low; and on the shore are some cliffs of exceeding white sand, particularly in the entrance of Port Haldimand, and on Cape Sable where they are very observable from sea.

From Cape Sable, sailing up the Bay of Fundy, you pass the Seal Isles and Tusket Bald Isles; the latter of which are small green isles, with red banks of earth; the shore between this and Cape St. Mary is surrounded with banks of red earth, and the country within appears even and well clothed with wood.

The coast from the south part of Long-Island to the Gut of Annapolis is nearly straight; the shore is bound with high rocky cliffs, above which is a range of hills, which rise to a considerable height; their tops appear smooth and unbroken, excepting near the Grand Passage, Petit Passage, Sandy Cove, and Gulliver's Hole, where those hills sink in a valley. From the Gut of Annapolis up the bay to Cape Split, the coast continues straight and nearly in the same direction, with a few rocky cliffs near the Gut, and many banks of red earth under high lands, which appear very even. In the Gut leading into the bason of mines from Cape Split to Cape Blow-me-down, and from Cape Dore, on the north side, to Partridge Island, the land rises almost perpendicular from the shore to a very great height. Between Cape Blow-me-down, and Partridge Island, there is a great depth of water, and the stream of the current, even at the times of neap tides does not run less than five or six knots.

Cape Dore and Cape Chignecto are high lands, with very steep cliffs of rocks and red earth, and deep water close under them: you have nearly the same kind of shore to the head of Chignecto Bay, where very extensive flats of mud and quicksands are left dry at low water. The tides come in a boar, and rush in with great rapidity; they are known to flow at the Equinoxes from 60 to 70 feet perpendicular.

The Isle Hanto is remarkable for the great height and steepness of the rocky cliffs, which seem to over-hang on its west side.



Directions for navigating on part of the South Coast of Newfoundland.

[N. B. *All Bearings and Courses hereafter mentioned, are the true Bearings and Courses, and not by Compass.*]

Cape Chapeaurouge, or the mountain of the Red Hat, is situated on the west side of Placentia bay, in the latitude of 46° 53' North, and lies nearly west 17 or 18 leagues from Cape St. Maries; it is the highest and most remarkable land on that part of the coast, appearing above the rest somewhat like the crown of a hat, and may be seen in clear weather 12 leagues.

Close to the eastward of Cape Chapeaurouge are the harbours of Great and Little St. Lawrence. To sail into Great St. Lawrence, which is the westernmost, there is no danger but what lies very near the shore; taking care with westerly, and particularly S. W. winds, not to come too near the Hat Mountain, to avoid the flerrys and eddy winds under the high lands. The course in, is first N. W. till you open the upper part of the harbour, then N. N. W. $\frac{1}{2}$ W.; the best place for large ships to anchor, and the best ground is before a cove on the east side of the harbour in 13 fathoms water, a little above Blue-Beach Point, which is the first point on the west side; here you lie only two points open: You may anchor any where between this point and the point of Low Beach, on the same side near the head of the harbour, observing that close to the west shore, the ground is not so good as on the other side. Fishing vessels lay at the head of the harbour above the beach, sheltered from all winds.

To sail into Little St. Lawrence, you must keep the west shore on board, in order to avoid a sunken rock which lies a little without the point of the Peninsula, which stretches off from the east side of the harbour: You anchor above this Peninsula (which covers you from the sea winds) in 3 and 4 fathoms water, a fine sandy bottom. In these harbours are good fishing conveniences, and plenty

of wood and water. Ships may anchor without the Peninsula in 12 fathoms good ground, but open to the S. S. E.

Sanker head lies 3 miles to the eastward of Cape Chapeaurouge; it is a pretty high round point, off which lie some sunken rocks, about a cable's length from the shore.

Garden bank, whereon is from 7 to 17 fathoms water, lies about half a mile off from Little St. Lawrence, with Blue Beach Point on with the east point of Great St. Lawrence.

Ferryland-Head, lies S. W. 1 mile from Cape Chapeaurouge; it is a high rocky island, just separated from the main: This Head and Cape Chapeaurouge, are sufficient marks to know the harbours of St. Lawrence.

West 5 miles from Ferryland-Head, lies the bay of Laun, in the bottom of which are two small inlets, called Great and Little Laun. Little Laun, which is the easternmost, lies open to the S. W. winds, which generally prevail upon this coast; and therefore no place to anchor in. Great Laun lies in about N. by E. 2 miles, is near half a mile wide, whereon is from 14 to 3 fathoms water. To sail into it, you must be careful to avoid a sunken rock, which lies about a quarter of a mile off from the east point. The best place to anchor is on the east side, about half a mile from the head, in 6 and 5 fathoms; the bottom is pretty good, and you are sheltered from all winds, except S. and S. by W. which blow right in and cause a great swell. At the head of this place is a bar harbour, into which boats can go at half tide; and conveniences for a fishery, and plenty of wood and water.

Off the west point of Laun Bay lie the islands of the same name, not far from the shore; the westernmost and outermost of which lie W. southerly, 10 miles from Ferryland-Head; near a quarter of a mile to the southward of this island is a rock whereon the sea breaks in very bad weather: There are other sunken rocks about these islands, but they are no ways dangerous, being very near the shore.

Taylor's Bay, which lies open to the sea, is 3 miles to the westward of Laun Islands; off the east point are some sunken rocks, near a quarter of a mile from the shore.

A little to the westward of Taylor's Bay, there stretches out a low point of land, called Point Aux Gaul; off which lies a rock above water, half a mile from the shore, called Gaul Shag Rock; this rock lies W. $\frac{3}{4}$ S. 5 leagues from Ferryland Head: you have 14 fathoms close to the off side of it, but between it and the point are some sunken rocks.

From Point Aux Gaul Shag Rock, to the Islands of Lamelin, is W. $\frac{1}{4}$ N. 1 league; between them is the Bay of Lamelin, wherein is very shallow water, and several small islands and rocks, both above and under water, and in the bottom of it is a salmon river.

The two Islands of Lamelin (which are but low) lie off the west point of the bay of the same name, and lie W. $\frac{1}{4}$ S. 6 leagues from the mountain of the Red Hat; but in steering along shore making a W. by S. course good, will carry you clear of all danger. Small vessels may anchor in the road between these islands in 4 and 5 fathoms, tolerably well sheltered from the weather. Nearly in the middle of the passage, going in between the two islands, is a sunken rock, which you avoid by keeping nearer to one side than the other: the most room is on the east side. The easternmost island communicates with the main at low water, by a narrow beach, over which boats can go at high water, into the N. W. arm of Lamelin Bay, where they lie in safety. Here are conveniences for a fishery, but little or no wood of any sort. Near to the south point of the westernmost island is a rock pretty high above water, called Lamelin Shag Rock; in going into the road between the islands, you leave this rock on your larboard side.

Lamelin Ledges lie along the shore, between Lamelin Islands and Point May, which is 3 leagues, and are very dangerous, some of them being 3 miles from the land. To avoid these ledges in the day time, you must not bring the islands of Lamelin to the southward of east, until Point May, or the western extremity of the land bear N. by E. from you; you may then steer to the northward with safe-

ty, between Point May and Green Island. In the night, or foggy weather, you ought to be very careful not to approach these ledges within 30 fathoms water, lest you get entangled amongst them. Between them and the main are various soundings from 16 to 5 fathoms.

All the land about Cape Chapeaurouge and Laun, is high and hilly close to the sea; from Lauu Islands to Lamelin it is of a moderate height; from Lamelin to Point May, the land near the shore is very low, with sandy beaches, but a little way inland are mountains.

The island of St. Peter's lies in the latitude $46^{\circ} 46'$ north W. by S. near 12 leagues from Cape Chapeaurouge, and W. by S. $\frac{1}{2}$ S. 5 leagues from the islands of Lamelin; it is about 5 leagues in circuit, and pretty high, with a craggy, broken, uneven surface. Coming from the westward, as soon as you raise Gallantry-Head, which is the south point of the island, it will make in a round hummock, like a small island, and appears as if separated from St. Peter's. On the east side of the island, a little to the N. E. of Gallantry-Head lie three small islands, the innermost of which is the largest, called Dog-Island; within this island is the road and harbour of St. Peter's; the harbour is but small, and hath in it from 12 to 20 feet water; but there is a bar across the entrance, whereon there is but 6 feet at low water, and 12 or 14 feet at high water. The road which lies on the N. W. side of Dog-Island will admit ships of any burden, but it is only fit for the summer season being open to the N. E. winds; you may lie in 8, 10, or 12 fathoms, and for the most part is a hard rocky bottom; there is very little clear ground; ships of war commonly buoy their cables; the best ground is near the north shore. Going in or out, you must not range too near the east side of Boar Island, which is the eastermost of the three islands above-mentioned, for fear of some sunken rocks which lie east about 1 mile from it, and which is the only danger about St. Peter's, but what lies very near the shore.

The island of Columbo is a small circuit, but pretty high, and lies very near the N. E. point of St. Peter's; between them is a very good passage, $\frac{1}{3}$ of a mile wide, wherein is 12 fathoms water. On the north side of the island is a rock pretty high above water called little Columbo: and about a quarter of a mile N. E. from this rock is a sunken rock, whereon is 2 fathoms water.

The island of Langly, which lies on the N. W. side of St. Peter's is about 8 leagues in circuit, of a moderate and pretty equal height, except the north end, which is a low point, with sand hills along it; it is flat a little way off the low land on both sides of it; but all the high part of the island is very bold too, and the passage between it and St. Peter's (which is 1 league broad) is clear of danger. You may anchor on the N. E. side of the island, a little to the southward of the Sand Hills, in 5 and 6 fathoms, a fine sandy bottom, sheltered from the southerly, S. W. and N. W. winds.

From the north point of Langly, to the south point of the island of Miquelon is about 1 mile; it is said that a few years since they joined together at this place by a neck of sand, which the sea has washed away and made a channel, wherein is 2 fathoms water. The island of Miquelon is 4 leagues in length from north to south, but of an unequal breadth; the middle of the island is high land, called the high land of Dunn; but down by the shore it is low, except Cape Miquelon, which is a lofty promontory at the northern extremity of the island.

On the S. E. side of the island, to the southward of the highland, is a pretty large bar harbour, called Dunn Harbour, which will admit fishing shallops at half flood, but can never be of any utility for a fishery.

Miquelon Rock stretches off from the east point of the island, under the high land 1 mile and a $\frac{1}{4}$ to the eastward, some are above and some under water; the outermost of these rocks are above water, and you have 12 fathoms close to them, and 18 and 20 fathoms 1 mile off. N. E. $\frac{1}{2}$ N. 4 or 5 miles from these rocks lies Miquelon bank, whereon is 6 fathoms water.

The road of Miquelon (which is large and spacious) lies at the north end, and on the east side of the island, between Cape Miquelon and a very remarkable round mountain near the shore, called Chapeaux: Off the south point of the

road are some sunken rocks, about a quarter of a mile from the shore, but every where else it is clear of danger. The best anchorage is near the bottom of the road in 6 and 7 fathoms, fine sandy bottom; you lie open to the easterly winds, which seldom blow in the summer.

Cape Miquelon, or the northern extremity of the Island, is high bluff land; and when you are 4 or 5 leagues to the eastward or westward of it, you would take it for an island, by reason the land at the bottom of the road is very low.

The Seal Rocks are 2 rocks above water, lying one league and a half off from the middle of the west side of the island Miquelon; the passage between them and the island is very safe, and you have 14 or 15 fathoms within a cable's length all round them.

Green Island, which is about $\frac{3}{4}$ of a mile in circuit, and low, lies N. E. 5 miles from St. Peter's, and nearly in the middle of the channel, between it and Point May on Newfoundland: on the south side of this island are some rocks both above and under water, extending themselves 1 mile and a quarter to the S. W.

DESCRIPTION OF FORTUNE BAY.

Fortune Bay is very large; the entrance is formed by Point May and Pass Island, which are 12 leagues N. by E. and S. by W. from each other, and it is about 23 leagues deep, wherein are a great many bays, harbours and islands.

The island of Brunet is situated nearly in the middle of the entrance into Fortune Bay; it is about 5 leagues in circuit, and of a tolerable height; the east end appears, at some points of view, like islands, by reason it is very low and narrow in two places. On the N. E. side of the island is a bay, wherein is tolerable good anchorage for ships in 14 and 16 fathoms, sheltered from southerly and westerly winds; you must not run too far in for fear of some sunken rocks in the bottom of it, a quarter of a mile from the shore; opposite this bay, on the south side of the island, is a small cove, wherein small vessels and shallops can lie pretty secure from the weather, in 6 fathoms water; in the middle of the cove is a rock above water, and a channel on each side of it. The islands lying at the west end of Brunet, called Little Brunets, afford indifferent shelter for shallops in blowing weather; you may approach these islands, and the island of Brunet, within a quarter of a mile all round, there being no danger but what lies very near the shore.

Plate Islands are three rocks of a moderate height, lying S. W. 1 league from the west end of Great Brunet. The southernmost and outermost of these rocks lie W. by S. half S. 11 miles from Cape Miquelon, and in a direct line between Point May and Pass Island, 17 miles from the former, and 19 from the latter; S. E. a quarter of a mile from the Great Plate (which is the northernmost) is a sunken rock, whereon the sea breaks, which is the only danger about them.

There are several strong and irregular settings of the tides or currents about the Plate and Brunet Islands which seem to have no dependency on the moon, and the course of the tides on the coast.

The island of Sagona, which lies N. N. E. two leagues from the east end of Brunet, is about 3 miles and a half in circuit, of a moderate height, and bold too all round; at the S. W. end is a small creek that will admit fishing shallops; in the middle of the entrance is a sunken rock, which makes it exceeding narrow, and difficult to get in or out, except in fine weather.

Point May is the southern extremity of Fortune Bay, and the S. W. extremity of this part of Newfoundland; it may be known by a great black rock nearly joining to the pitch of the point, and something higher than the land, which makes it look like a black hummock on the point; near a quarter of a mile right off from the point, or this round black rock, are three sunken rocks whereton the sea always breaks.

Near 2 miles north from Point May, is Little Dantzick Cove, and half of

league from Little Dantzick is Great Dantzick Cove; these coves are no places of safety being open to the westerly winds; the land about them is of a moderate height, bold too, and clear of wood.

From Dantzick Point (which is the north point of the coves) to Fortune, the course is N. E. near 3 leagues; the land between them near the shore is of a moderate height, and bold too; you will have in most places 10 and 12 fathoms two cables length from the shore, 30 and 40 one mile off, and 70 and 80 two miles off. Fortune lies north from the east end of Brunet; it is a bar place that will admit fishing boats at a quarter flood; and a fishing village situated in the bottom of a small bay wherein is anchorage for shipping in 6, 8, 10 and 12 fathoms; the ground is none of the best; and you lay open to near half the compass.

Cape of Grand Bank, is a pretty high point, lying one league N. E. from Fortune; into the eastward of the cape is Ship Cove, wherein is good anchorage for shipping, in 8 and 10 fathoms, sheltered from southerly, westerly, and N. W. winds. Grand Bank lies E. S. E. $\frac{1}{2}$ league from the cape; it is a fishing village, and a bar harbour that will admit of fishing shallops at a quarter flood; to this place and Fortune, resort the crews of fishing ships, who lay their ships up in harbour Britain. From the Cape of Grand Bank to Point Enragee, the course is N. E. $\frac{1}{4}$ E. 8 leagues, forming a bay between them, in which the shore is low, with several sandy beaches, behind which are bar harbours that will admit boats on the tide of flood, the largest of which is Great Garnish, 5 leagues from Grand Bank; it may be known by several rocks above water, lying before it; 2 miles from the shore, the outmost of these rocks are steep too, but between them and the shore are dangerous sunken rocks. To the eastward, and within these rocks is Frenchman's Cove, wherein you may anchor with small vessels in 4 and 5 fathoms water, tolerably well sheltered from the sea winds, and seems a convenient place for the cod fishery. The passage in is to the eastward of the rocks that are the highest above water; between them and some other lower rocks lying off to the eastward from the east point of the cove, there is a sunken rock nearly in the middle of this passage which you must be aware of. You may anchor any where under the shore, between Grand Bank and Great Garnish in 8 and 10 fathoms water, but you are only sheltered from the land winds.

Point Enragee is but low, but a little way in the country is high land; this point may be known by two hummocks upon it close to the shore, but you must be very near, otherwise the elevation of the high lands will hinder you from discovering them; close to the point is a rock under water.

From Point Enragee to the head of the bay the course is first N. E. $\frac{1}{4}$ E. 3 leagues to Grand Jervey; then N. E. by E. $\frac{1}{2}$ E. 7 $\frac{1}{2}$ leagues to the head of the bay; the land in general along the south side is high, bold too, and of an uneven height, with hills and vallies of various extent; the vallies for the most part clothed with wood, and watered with small rivulets.

Seven leagues to the eastward of Point Enragee, is the bay L'Argent, wherein you may anchor in 30 or 40 fathoms water, sheltered from all winds.

The entrance of harbour Mille is to the eastward of the east point of L'Argent; before this harbour and the bay L'Argent, is a remarkable rock, that at a distance appears like a shallop under sail. Harbour Millee branches into two arms, one lying in to the N. E. and the other towards the E. at the upper part of both is good anchorage, and various sorts of wood. Between this harbour and Point Enragee, are several bar harbours in small bays, wherein are sandy beaches, off which vessels may anchor, but they must be very near the shore to be in a moderate depth of water.

Cape Millee lies N. N. E. $\frac{1}{2}$ E. 1 league from the before-mentioned Shallop Bank, and near 3 leagues from the head of Fortune Bay is a high, reddish barren rock. The width of Fortune Bay at Cape Millee, does not exceed half a league, but immediately below it, it is twice as wide, by which this cape may easily be known: above this cape the land on both sides is high, with steep craggy cliffs. The head of the bay is terminated by a low beach, behind which is a large pond

or bar harbour, into which boats can go at quarter flood. In this and all the bar harbours between it and Grand bank, are convenient places for building of stages, and good beaches for drying of fish, for great numbers of boats.

Grand L'Pierre is a good harbour, situated on the north side of the bay, half a league from the head; you can see no entrance until you are abreast of it; there is not the least danger in going in, and you may anchor in any depth from 3 to 4 fathoms, sheltered from all winds.

English Harbour lies a little to the westward of Grand L'Pierre; it is very small and fit only for boats and small vessels.

To the westward of English Harbour is a small bay called Little bay de Leau, wherein are some small islands, behind which is shelter for small vessels.

New Harbour is situated opposite Cape Milhe, to the westward of Bay de Leau; it is but a small inlet, yet hath good anchorage on the west side in 9, 8, 7 and 5 fathoms water sheltered from the S. W. winds.

Harbour Femme, which lies half a league to the westward of New Harbour, lies in N. E. half a league, is very narrow, and hath in it 23 fathoms water; before the entrance is an island, near to which are some rocks above water: The passage into the harbour is to the eastward of the island.

One league to the westward of Harbour Femme, is a small cove called Brewer's Hole, wherein is shelter for fishing boats; before this cove is a small island near the shore, and some rocks above water.

Harbour le Conte is situated 1 mile to the westward of Brewer's Hole, before which are two islands, one without the other; the outermost of which is the largest, is of a tolerable height, and lies in a line with the coast, and is not easy to be distinguished from the main in sailing along the shore. To sail into this harbour, the best passage is on the west side of the outer island, and between the two; as soon as you begin to open the harbour, you must keep the inner island close on board, in order to avoid some sunken rocks that lay near a small island, which you will discover between the N. E. point of the outer island, and the opposite point on the main; and likewise another rock under water, which lays higher up on the side of the main; this rock appears at low water. As soon as you are above these dangers, you may steer up in the middle of the channel, until you open a fine spacious bason, wherein you may anchor in any depth from 5 to 17 fathoms water, shut up from all winds; the bottom is sand and mud. In to the eastward of the outer island, is a small cove fit for small vessels and boats, and conveniences for the fishery.

Long Harbour lies 4 miles to the westward of Harbour le Conte, and N. E. by N. 5 leagues from Point Enragee; it may be known by a small island in the mouth of it, called Gull island; and half a mile without this island is a rock above water, that hath the appearance of a small boat. There is a passage into the harbour on each side of the island, but the broadest is the westernmost. Nearly in the middle of this passage, a little without the island, is a ledge of rocks, whereon is 2 fathoms water: a little within the island on the S. E. are some sunken rocks, about 2 cables length from the shore, lying off two sandy coves; some of these rocks appear at low water. On the N. W. side of the harbour 2 miles within the island is Mergan's Cove, wherein you may anchor in 15 fathoms water, and the only place you can anchor unless you run into, or above the Narrows, being every where else very deep water. This harbour runs 5 leagues into the country, at the head of which is a salmon fishery.

A little to the westward of Long Harbour is Bell bay, which extends 3 leagues every way, and contains several bays and harbours. On the east point of this bay is Hare Harbour, which is fit only for small vessels and boats, before which are two small islands, and some rocks above and under water.

Two miles to the northward of Hare Harbour, or the point of Bell bay, is Mall bay, being a narrow arm, lying in N. E. by N. 5 miles, wherein is deep water, and no anchorage until at the head.

Rencontre Islands lie to the westward of Mall bay, near the shore; the west-

ermost which is the largest, has a communication with the main at low water; in and about this island are shelter for small vessels and boats.

Bell Harbour lies 1 league to the westward of Rencontre Islands: The passage into the harbour is on the west side of the island: in the mouth of it, as soon as you are within the island, you will open a small cove on the east side wherein small vessels anchor, but large ships must run up to the head of the harbour, and anchor in 20 fathoms water, there being most room.

Lally Cove lies a little to the westward of Bell Harbour: it is a very snug place for small vessels, being covered from all winds behind the island in the cove.

Lally Head is the west point of Lally Cove; it is a high bluff white point: To the northward of the head is Lally Cove back cove, wherein you may anchor in 16 fathoms water.

Two miles to the northward of Lally Cove Head, is the bay of the east, and bay of the north; in both is deep water, and no anchorage, unless very near the shore. At the head of the north bay is the largest river in Fortune Bay, and seems a good place for a salmon fishery.

The bay of Cinq Isles lies to the southward of the north bay; and opposite to Lally Cove Head there is tolerable good anchorage for large ships on the S. W. side of the island in the bottom of the bay. The north arm is a very snug place for small vessels; at the head of this arm is a salmon river.

A little to the southward of the bay of Cinq Isles is Corben Bay, wherein is good anchorage for any ships in 22 or 24 fathoms water.

S. E. about 2 miles from Lally Cove Head, are 2 islands about a mile from each other; the north eastermost is called Bell Island, and the other Dog Island; they are of a tolerable height, and bold too all round.

Between Dog Island and Lord and Lady Island, which lies off the south point of Corben bay, is a sunken rock, (somewhat nearer to Lord and Lady, than Dog Island,) whereon the sea breaks in very bad weather, and every where round it very deep water. About a quarter of a mile to the northward of the north end of Lord and Lady Island, is a rock that appears at low water.

Bande de La'rier bay lies on the west point of Bell bay and N. N. W. $\frac{1}{2}$ W. near 3 leagues from Point Enragee; it may be known by a very high mountain over the bay, which rises almost perpendicular from the sea, called Iron Head. Chappel Island, which forms the east side of the bay, is high land also. The harbour lies on the west side of the bay, just within the point, formed by a narrow low beach; it is very small, but a snug place, and conveniently situated for the cod fishery. There is a tolerable good anchorage along the west side of the bay, from the harbour up towards Iron Head in 18 and 20 fathoms water.

The bank of Bande de La'rier, whereon is no less than 7 fathoms, lies with the beach of Bande de La'rier Harbour, just open of the west point of the bay, and Boxy Point on with the north end of St. Jaques Island.

Two miles to the westward of Bande de La'rier, is the harbour of St. Jaques, which may be easily known by the island before it. This island is high at each end, and low in the middle, and at a distance looks like 2 islands, it lies N. 30° E. $8\frac{1}{2}$ leagues from the Cape of Grand bank, and N. E. by E. 7 leagues from the east end of Brunet. The passage into the harbour is on the west side of the island; there is not the least danger in going in, or in any part of the harbour; you may anchor in any depth from 17 to 4 fathoms.

Two miles to the westward of St. Jaques is the harbour of Blue Pinion; it is not near so large, or so safe as that of St. Jaques; near to the head of the harbour, on the west side, is a shoal, whereon is two fathoms at low water.

A little to the westward of Blue Pinion is English Cove, which is very small, wherein small vessels and boats can anchor; before it and very near the shore is a small island.

Boxy Point lies S. W. by W. $\frac{1}{2}$ W. $2\frac{1}{2}$ leagues from St. Jaques Island, N. N. E. near 7 leagues from the cape of Grand Bank, and N. E. $\frac{3}{4}$ E. 13 miles from the east end of Brunet Island; it is of a moderate height, the most advanced to the southward of any land on the coast, and may be distinguished at a considera-

ble distance; there are some sunken rocks off it, but they lay very near the shore, and are no way dangerous.

N. N. E. 3 miles from Boxy Point, is the harbour of Boxy; to sail into it you must keep Boxy Point just open of Freyer's Head, (a black head a little within the point) in this direction you will keep in the middle of the channel between the shoals which lay off from each point of the harbour, where the stages are; as soon as you are within these shoals which cover you from the sea winds, you may anchor in 5 and 4 fathoms water, fine sandy ground.

West 1 mile from Boxy Point is the island of St. John's, which is of a tolerable height, and steep too, except at the N. E. point where is a shoal a little way off.

N. W. half a league from St. John's Island is St. John's Head, which is a high, steep, craggy point. Between St. John's Head and Boxy Point is St. John's bay, in the bottom of which is St. John's Harbour, wherein is only water for boats.

On the north side of St. John's Head are two rocky islands, called the Gull and Shag; at the west end of these islands are some sunken rocks.

One league and a half to the northward of St. John's Head is the Great bay de Leau, wherein is good anchorage in various depths of water, sheltered from all winds. The best passage in, is on the east side of the island, lying in the mouth of it; nothing can enter in on the west side but small vessels and shallops.

To the westward of Bay de Leau, 3 miles N. N. W. from St. John's Head is Little Bay Barrisway, on the west side of which is good anchorage for large ships in 7, 8, or 10 fathoms water; here is good fishing conveniencies, with plenty of wood and water.

Harbour Britain lies to the westward of Little Bay Barrisway, north $1\frac{1}{2}$ league from the island of Sagona, and N. by E. from the east end of Brunet. The two heads which form the entrance of this harbour or bay are pretty high, and lay from each other E. N. E. and W. S. W. above two miles; near the east head is a rock above water, by which it may be known; there are no dangers in going in until you are the length of the south point of the S. W. arm, which is more than a mile within the west head; from off this point stretches out a ledge of rocks N. E. about two cables length; the only place for king's ships to anchor is above this point, before the S. W. arm, in 16 or 18 fathoms water, mooring nearly E. and W. and so near the shore as to have the east head on with the point above mentioned; the bottom is very good, and the place convenient for wooding and watering. In the S. W. arm is room for a great number of merchant ships, and many conveniencies for fishing vessels.

Opposite to the S. W. arm, is the N. E. arm, or Jerseyman's Harbour, which is capable of holding a great number of ships securely sheltered from all winds. To sail into it you must keep the point of Thompson's beach, (which is the beach point at the entrance into the S. W. arm) open of Jerseyman's head, (which is a high bluff head at the north entrance into Jerseyman's harbour) this mark will lead you over the bar in the best of the channel, where you will have 3 fathoms at low water; as soon as you open the harbour, haul up north, and anchor where it is most convenient, in 8, 7, or 6 fathoms water, good ground, and sheltered from all winds. In this harbour are several convenient places for erecting many stages, and good beach room. Jerseymen generally lay their ships up in this harbour, and cure their fish at Fortune and Grand bank.

From Harbour Briton to the west end of Brunet, and to the Plate Islands, the course is S. W. by S. $6\frac{1}{2}$ leagues to the southernmost Plate. From the Harbour Briton to Cape Miquelon is S. W. $\frac{1}{4}$ W. 10 leagues. From the west head of harbour Briton to Canaigre head, the course is W by S. distant 2 leagues; between them are Gull island and Deadman's bay. Gull island lies close under the land, 2 miles to the westward of Harbour Briton. Deadman's bay is to the westward of Gull island, wherein you may anchor with the land winds. Between Harbour Briton and Canaigre head, is a bank stretching off from the shore between 2 and 3 miles, whereon is various depths of water from 34 to 4 fathoms. Fishermen say that they have seen the sea break, in very bad weather, a good way without Gull island.

Cannaigre head, which forms the east point of the bay of the same name, lies north easterly $3\frac{1}{2}$ leagues from the west end of Brunet; it is a high craggy point, easy to be distinguished from any point of view. From this head to Bassaterre point, the course is W. by N. $\frac{1}{2}$ N. 2 leagues, and likewise W. by N. $\frac{1}{2}$ N. $3\frac{1}{2}$ leagues to the rocks of Pass island; but to give them a birth, make a W. by N. course good. Between Cannaigre head and Bassaterre point is Cannaigre bay, which extends itself about 4 leagues inland, at the head of which is a salmon river. In the mouth of the bay lay the rocks of the same name above water; you may approach these rocks very near, there being no danger but what discovers itself. The channel between them and the north shore is something dangerous, by reason of a range of rocks which lie along ashore, and extend themselves one mile off.

Cannaigre harbour, which is very small, with 7 fathoms water in it, is within a point on the south side of the bay, 5 miles above the head; the passage into the harbour is on the S. E. side of the island lying before it. Nearly in the middle of the bay, abreast of this harbour, are two islands of a tolerable height; on the south side of the westernmost island, which is the largest, are some rocks above water.

Dawson's cove is on the N. W. side of the bay, bears north, distance about 4 miles from the head, and east two miles from the west end of the Great island. In it are good fishing conveniencies, and anchorage for vessels in 6 and 5 fathoms water, but they will lay open to the southerly winds. Between the S. W. point of this cove and Bassaterre point, which is 5 miles distance, lays the range of rocks before mentioned.

Bassaterre point, which forms the west point of Cannaigre bay, is of a moderate height, clear of wood, and bold too, all the way from it to Pass island, which bears N. W. by W. 1 league from Bassaterre point.

The land on the north side of Fortune bay, for the most part, is hilly, rising directly from the sea, with craggy, barren hills, which extend 4 or 5 leagues inland, with a great number of rivulets and ponds. The land on the south side of Fortune bay, has a different appearance to that on the north side, being not so full of craggy mountains, and better clothed with woods, which are of a short brushy kind, which makes the face of the country look green.

Pass island lies N. $16^{\circ} 30'$ E. $7\frac{1}{2}$ leagues from Cape Miquelon; it is the N. W. extremity of Fortune bay, and lies very near the shore, is more than 2 miles in circuit, and is pretty high. On the S. W. side are several rocks above water, which extend themselves 1 mile from the island; and on the N. W. side is a sunken rock, at a quarter of a mile from the island: The passage between this island and the main, which is near 2 cables' length wide, is very safe for small vessels, wherein you may anchor in 6 fathoms, a fine sandy bottom. This island is well situated for the cod fishery, there being very good fishing ground about it.

In the night time, or in foggy weather, ships ought to place no great dependence on the soundings in Fortune bay, lest they may be deceived thereby: for you have more water in many parts near the shore, and in several of its contained bays and harbours, than in the middle of the bay itself.

DESCRIPTION OF HERMITAGE BAY.

From Pass island to Great Jarvis Harbour, at the entrance into the bay of Despair, the course is N. by E. a quarter E. near 3 leagues; and from Pass island to the west end of Long island, the course is N. N. E. 8 miles, between them is the bay of Hermitage, which lies in E. N. E. 8 leagues from Pass island, with very deep water in most parts of it.

The two Fox islands, which are but small, lie nearly in the middle of Hermitage bay, 3 leagues and a half from Pass island; near to these islands is good fishing ground.

Hermitage cove is on the south side of the bay, opposite to Fox's islands: To sail into it, you must keep between the islands and the south shore, where there is

not the least danger; in this cove is good anchorage for shipping in 8 and 10 fathoms water, and good fishing conveniences with plenty of wood and water.

Long island which separates the bay of Despair from Hermitage, is of a triangular form, about 3 leagues in circuit, of a tolerable height, is hilly, uneven, and barren. The east entrance into the bay of Despair from Hermitage bay, is by the west end of Long island: about $\frac{1}{2}$ a mile from the S. W. point of the said island, are 2 rocks above water, with deep water all round them.

Long island harbour lies on the south side of Long island, $2\frac{1}{2}$ miles from the west end; before which is an island, and several rocks above water; there is a narrow passage into the harbour on each side of the island; this harbour is formed by 2 arms, one lying into the north, and the other to the eastward; they are both very narrow, and have in them from 42 to 7 fathoms water; the east arm is the deepest, and the best anchorage.

Round harbour, wherein is 6 fathoms water, lies near 2 miles to the eastward of Long island harbour, and is also in Long island; it will only admit very small vessels, by reason the channel going in is very narrow.

Harbour Picarre lies N: by W. $\frac{1}{2}$ a league from Little Fox island, (which is the westernmost of Fox islands;) to sail into it, you must keep near the west point, to avoid some sunken rocks off the other, and anchor in the first cove on the east side, in 9 or 10 fathoms, sheltered from all winds.

Gattaus harbour, which is but small, lies near the east point of Long island; at the entrance is several rocky islands. The best channel into the harbour, is on the west side of these islands, wherein is 4 fathoms water, but in the harbour is from 15 to 21 fathoms. Here are several places proper for erecting stages; and both this harbour and Picarre are conveniently situated for a fishery, they lying contiguous to the fishing grounds about Fox islands.

Between the east end of Long island and the main, is a very good passage out of Hermitage bay, into the bay of Despair.

DESCRIPTION OF THE BAY OF DESPAIR.

The entrance of the bay of Despair lies between the west end of Long island and Great Jervis island (an island in the mouth of the harbour of the same name) the distance from one to the other, is 1 mile and a $\frac{1}{4}$, and in the middle between them is no soundings with 280 fathoms.

The bay of Despair forms 2 capacious arms, one extending to the N. E. 8 leagues, and the other to the northward 5 leagues; in the north arm is very deep water, and no anchorage, but in the small bays and coves which lay on each side of it. At the head of the bay of the east, which is an arm of the north bay, is a very fine salmon river, and plenty of wood. In the N. E. arm of the bay of Despair are several arms and islands, and tolerable good anchorage in some parts of it. Little river and Conne river are counted good places for salmon fisheries: About these rivers and the head of the bay are great plenty of all sorts of wood common to this country, such as fir, pine, birch, witch-hazle, spruce, &c. All the country about the entrance into the bay of Despair, and for a good way up it, is very mountainous and barren, but about the head of the bay it appears to be pretty level, and well clothed with wood.

Great Jervis harbour is situated at the west entrance into the bay of Despair, is a snug and safe harbour, with good anchorage in every part of it in 16, 18 or 20 fathoms; though but small, will contain a great number of shipping, securely sheltered from all winds, and very convenient for wooding and watering. There is a passage into this harbour on either side of Great Jervis island, the southernmost is the safest, there being in it no danger but the shore itself. To sail in on the north side of the island, you must keep in the middle of the passage, until you are within two small rocks above water near to each other on your starboard side, a little within the north point of the passage; you must then bring the said north point between these rocks, and steer into the harbour in that direction, which will carry you clear of some sunken rocks which lie off the west point of the island;

these rocks appear at low water. The entrance into this harbour may be known by the east end of Great Jervis island, which is a high steep craggy point called Great Jervis head, and is the north point of the south entrance into this harbour.

Bonne bay lies one league to the westward from Cape Jervis head, and north 7 miles from Pass island, there are several islands in the mouth of it, the westernmost of which is the largest and highest. The best passage into the bay is to the eastward of the largest island, between it and the two easternmost islands; which two islands may be known by a rock above water, off the south point of each of them. The bay lies in N. N. W. four miles, and is near half a mile broad in the narrowest part; there is no danger going in, but what shews itself; you may go on either side of Drake island, which is a small island nearly in the middle of the bay; between this island, and 2 small islands, lying on the west side of the bay within Great island, is anchorage in 20 and 30 fathoms, but the best place for large ships is at the head of the bay in 12 or 14 fathoms, clear ground, and convenient for wooding and watering. On the west side of the bay, abreast of Drake island is a very snug harbour for small vessels, wherein is 7 fathoms water, and good conveniencies for a fishery: off the south point of the entrance are some sunken rocks about a cable's length from the shore. On the N. W. side of the great island, within the 2 small islands, is very good anchorage in 16, 20, and 24 fathoms water sheltered from all winds. The passage into this place to the westward of the great island from the sea is very dangerous, by reason there are several sunken rocks in the passage and shallow water; but there is a very good passage into it from the bay, passing to the northward of the 2 small islands between them and the west shore. In sailing in or out of the bay you must not approach too near the south point of the Great island, because of some sunken rocks which lie a quarter of a mile from the shore.

A little to the westward of Bonne bay, between it and Facheux, is Musketa cove, a small inlet, wherein is from 30 to 47 fathoms of water.

The entrance of the bays of Facheux and Dragon, lies west 4 miles from Bonne bay, and N. W. by N. near 3 leagues from Pass island; this entrance is very conspicuous at sea, by which this part of the coast is easily known. Facheux, which is the easternmost branch, lies in north 2 leagues, and is $\frac{2}{3}$ of a mile broad in the narrowest part, which is at the entrance, with deep water in most parts of it. One mile up the bay on the west side is a cove, wherein is anchorage in 10 fathoms, with gradual soundings into the shore, and a clear bottom; and farther up the bay, on the same side, are 2 other coves, wherein is anchorage and plenty of wood and water. Dragon bay lies in W. N. W. 1 league, and is near $\frac{1}{2}$ a mile broad, wherein is 60 and 70 fathoms water, and no anchorage till you come to the head, and then you must be very near the shore to be in a moderate depth of water.

One mile to the westward of Facheux is little hole, wherein is shelter for shallops. And one league to the westward of Facheux is Richard's harbour, a snug place for small vessels and fishing shallops, wherein is not more than 23 fathoms. The east point of this harbour is a very conspicuous high head, lying W. $\frac{1}{2}$ S. 7 miles from Bonne bay, and N. W. $\frac{1}{4}$ W. 3 leagues from Pass island.

W. by N. $1\frac{1}{2}$ league from Richard's harbour, is Hare bay, which lies in north about 5 miles, is about $\frac{1}{2}$ of a mile broad in the narrowest part, with very high land on both sides, and deep water close home to both shores in most parts of it. Near 1 mile up the bay, on the east side, is a small cove, wherein is anchorage in 20 fathoms, with gradual soundings into the shore, and 1 league up the bay on the west side, is a very good harbour, wherein is good anchorage in 8, 10, 12 and 15 fathoms, and plenty of wood and water.

W. by N. 4 miles from Hare bay and 1 league N. by W. from Hare's Ears point is Devil's bay, a narrow inlet lying into the northward 1 league, wherein is deep water, and no anchorage till you come close to the head.

The bay of Recontre, which lies to the northward of Hare's Ear point lies in W. by N. 2 leagues, it is near $\frac{1}{2}$ a mile broad in the narrowest part, with deep water in most parts of it. To anchor in this bay, you must run up above a low woody

point on the south side, then haul under the south shore until you are land-locked and anchor in 30 fathoms water.

Hare's Ears point is a pretty large point, with a ragged rock upon it, that from some points of view looks like the ears of a Hare; it lies west southerly 11 miles from the point of Richard's harbour, and W. by N. half N. 6 leagues from Pass island: off this point is a fishing bank that extends a mile from the shore, whereon is from 20 to 36 fathoms water.

One mile to the northward of Hare's Ears point, at the S. W. entrance into Recontre is New harbour, a small harbour, wherein is anchorage for small vessels in 16 fathoms water, and good conveniences for a fishery.

West 2 miles from Hare's Ears point, is the bay of Chaleur, which lies in first N. W. then more northerly, in the whole 2 leagues. it is about half a mile broad, and hath very deep water in most parts. At the north entrance into the bay, close to the shore, is a small island of a tolerable height, and half a league within the island, on the N. E. side of the bay, is a rock above water; a little within this rock, on the same side, is a small cove with a sandy beach, off which you may anchor in 28 fathoms a cable's length from the shore.

W. S. W. near half a league from the bay of Chaleur, is the bay Francois, which is a small inlet, lying in N. N. W. half W. 1 mile; it is near a $\frac{1}{4}$ of a mile broad at the entrance, and 17 fathoms deep; but just within is 50 and 60 fathoms; at the head is from 30 to 20 fathoms, good anchorage, and conveniences for a fishery.

W. S. W. 4 miles from the bay Francois, on the east side of Cape la Hune lies Oar bay; off the east point of the entrance is a low rocky island, close to the shore; from this point to the entrance into the bay of Despair, the course is W. $\frac{3}{4}$ N. 9 leagues. In the mouth of this bay is a rocky island, and a passage on each side of it: The bay lies in first N. N. E. near one league, then north 2 miles; it is one third of a mile broad in the narrowest part, with deep water close to both shores all the way up; the least water is at the entrance: At the head is a small snug harbour, fit only for small vessels and fishing shallops, wherein is 5 fathoms water: At the west side of the entrance into the bay N. W. by N. from the rocky island before mentioned, is a small snug cove, called Cul de Sac, wherein is 3 and 4 fathoms water and good shelter for fishing vessels.

Cape la Hune is the southernmost point of land on this part of the coast, and lies in the latitude of 47° 31' 42" N. W. $\frac{2}{3}$ N. from Pass island, and N. W. $\frac{1}{2}$ N. 10 $\frac{1}{2}$ leagues from Cape Miquilon; it may be easily known by its figure, which much resembles a sugar loaf; but in order to distinguish this, you must approach the shore at least within 3 leagues. (unless you are directly to the eastward or westward of it) otherwise the elevation of the highland within it, will hinder you from distinguishing the sugar loaf hill; but the cape may always be known by the high land of la Hune, which lies one league to the westward of it: this land rises directly from the sea to a tolerable height, appears pretty flat at top, and may be seen in clear weather 16 leagues.

South 29° W. 3 and half leagues from Cape la Hune, and north 61° west, near 10 leagues from Cape Miquilon, lies the Penguin islands, which are a parcel of barren rocks lying near to each other, and altogether about 2 leagues in circuit; you may approach these islands in the day time to half a league all round, there being no danger at that distance off. On the S. W. side of the large island which is the highest, is a small cove, wherein is shelter for fishing shallops, and good conveniences for a fishery, and there is good fishing round about the island.

East 3° north, 7 miles from the Penguin islands, and south 9° east, 3 leagues from Cape la Hune, is a dangerous rock called the Whale rock, whereon thesea generally breaks; it is about 100 fathoms in circuit, with 10, 12, and 14 fathoms water close too all round it. From this rock stretches out a narrow bank 1 league to the westward, and $\frac{1}{2}$ a league to the eastward, whereon is from 24 to 58 fathoms, a rocky and gravelly bottom. In the channel between the shore and this rock, also between the shore and Penguin islands is 120 and 130 fathoms

water, a muddy bottom, and the same bottom, and nearly the same depth of water one league without.

Round the west point of Cape la Hune is la Hune bay, which lies in north near 2 leagues, and is about $\frac{1}{3}$ of a mile broad in the narrowest part, which is at the entrance, with deep water in most parts of it. In sailing in or out of the bay, you must keep the cape or east shore on board, in order to avoid a sunken rock which lies off the west point of the entrance into the bay, near $\frac{1}{3}$ channel over. Two miles up the bay, on the east side is Lance cove, wherein is anchorage in 10 and 14 fathoms water, clear ground, and good conveniences for a fishery: 1 cable's length off from the south point of the cove, (which is low) is a small shoal, whereon is 1 and $\frac{1}{2}$ fathoms, and between it and the point 5 fathoms water. To sail into the cove, keep the point of the cape, or east entrance into the bay open of a red cliff point on the same side, (off which is a rock above water) until a round hill you will see over the valley of the cove, be brought on the north side of the valley; you will then be above the shoal, and may haul into the cove with safety. There is a narrow bank which stretches quite across the bay, from the south point of the cove, to a point on the opposite shore, whereon is from 27 to 45 fathoms.

La Hune harbour, wherein is only room for the admittance of small vessels open to the westerly winds, lies $\frac{1}{2}$ a league to the westward of Cape la Hune; before which is an island close under the shore. The passage into the harbour is on the N. W. side of the island; there is no danger in going in, and you must anchor close up to the head, in 10 fathoms water. This harbour is well situated for a fishery, there being good fishing ground about it, and other conveniences, such as a large beach, quite across from the head of the harbour to la Hune bay, which is 300 feet, exposed to an open air, which is a great advantage for drying of fish.

Between Cape la Hune and Little river, the land is tolerable high, and the shore forms a bay, wherein lie several small islands and rocks above water, the outermost of which lies north 3 leagues from the Penguin islands; near these rocky and within them are sunken rocks and foul ground; the passage is very safe between the rocks and the Penguin islands.

W. by S. 4 leagues from Cape la Hune, is the entrance of Little river, which may be known by the land near it, which forms a very conspicuous point on the coast, and tolerable high; the river is about 100 fathoms broad at the entrance, and 10 fathoms deep, and affords good anchorage a little way up it, in 10, 8, and 7 fathoms water: its banks are tolerable high and clothed with wood.

S. $\frac{1}{4}$ E. 2 leagues from the entrance of little river N. W. $\frac{1}{2}$ N. $2\frac{1}{2}$ leagues from the Penguin islands, and E. S. E. $\frac{1}{2}$ E. $3\frac{1}{2}$ leagues from the Isles of Ramea, lie the Little river rocks, which are just above water, and of a very small circuit, with very deep water all around them.

The Isles of Ramea, which are of various extent both for height and circuit lay N. W. $\frac{1}{2}$ N. near 6 leagues from the Penguin Islands and 1 league from the main: they extend E. and W. 5 miles, and N. and S. 2 miles: there are several rocks and breakers about them, but more on the S. side than the N. the easternmost island, which is the largest, is very high and hilly; and the westernmost, called Columbe, is a remarkable high round island, of a small circuit, near to which are some rocky islands and sunken rocks.

The harbour of Ramea (which is a small commodious harbour for fishing vessels) is formed by the islands which lie between Great Ramea and Columbe, the entrance from the westward (which is the broadest) lies E. from Columbe, give the S. point of the entrance a small birth, (off which are some rocks above water) and steer N. E. into the harbour, keeping in the middle of the channel which is more than a cable's length broad in the narrowest part, and anchor in Ship cove, which is the second on the N. W. side, in 5 fathoms clear ground, and sheltered from all winds. To sail into it from the eastward, keep the north side of Great Ramea on board until you are at the west end thereof, then steer S. W. into the harbour, keeping in the middle of the channel, wherein is 3 fathoms at low water, and anchor as above directed. In this harbour, and about these islands, are

several convenient places for erecting of stages, and drying of fish, and seem well situated for that purpose..

S. E. $\frac{1}{2}$ S. 4 miles from Ramea, are 2 rocks above water, close to each other, called Ramea rocks: S. W. 1 league from these rocks is a small fishing bank, whereon is 6 fathoms water; it lies, with the rocks above-mentioned, on with the W. entrance of Little River, bearing N. E. and Ramea Columbe on with a high saddle hill, (called Richards head) on the main within the isles of Burges, bearing nearly N. W. Nearly in the middle between Ramea and the Penguin islands, 2 leagues from the land, is a fishing bank, whereon is from 50 to 14 fathoms. To run upon the shoalest part of this bank, bring the two Ramea rocks, (which lie S. E. $\frac{1}{2}$ S. from Ramea islands) on with the S. W. part of the islands, or between them and Columbe, and the entrance into Little River to bear N. by E. $\frac{1}{2}$ E.

Four miles to the westward of Little River, and N. E. by E. from Ramea islands, is Old Man's bay, which lies in N. 7 miles, and is a mile broad at the entrance, with deep water in most parts of it. N. E. half a league up the bay on the east side, is Adam's island, behind which is anchorage in 30 and 40 fathoms, but the best anchorage is at the head of the bay, in 14 and 16 fathoms.

Half a league to the westward of Old Man's bay, and N. E. from Ramea isles, is Musketa harbour which is a very snug and safe harbour, that will hold a great number of shipping in perfect security; but it is difficult to get in or out unless the wind is favourable, by reason the entrance is so very narrow (being but 46 fathoms broad) and the land high on both sides; the S. E. point of the entrance into the harbour is a high white rock; near a cable's length from this white rock, or point, is a black rock above water, on the south side of which is a sunken rock, whereon the sea breaks: From this black rock to the narrow entrance into the harbour, is N. W. $\frac{1}{2}$ of a mile. In sailing in or out of the harbour, give the black rock a small birth, and keep the W. side most on board, it being the safest. If you are obliged to anchor, you must be very brisk in getting a rope on shore, lest you tail upon the rocks. In the harbour is from 18 to 30 fathoms, every where good anchorage, and plenty of wood and water, and fishing conveniencies. In the Narrows is 12 fathoms bold to both shores there; with southerly and easterly winds it blows right in, with northerly winds out, and with westerly winds it is either calm, or blows in variable puffs

Fox island harbour, which is formed by an island of the same name, lies N. E. by N. from Ramea isles, and half a league to the westward of Musketa harbour; between them are several rocky islands, and some sunken rocks. This harbour may be known by a high white rock lying S. $\frac{1}{2}$ a mile from the outer part of the island. There are two passages into the harbour, one on each side of the island, and no danger in either of them but what discovers itself; it is a small commodious harbour for the fishery, wherein is 6, 8, and 10 fathoms water, and some beach.

White Bear bay lies 2 miles to the westward of Fox island harbour, and N. 1 league from Ramea isles; there are several islands in the mouth of it. The best passage into the bay is to the eastward of all the islands; it lies in N. E. by E. $\frac{1}{2}$ E. 4 leagues, and is near half a mile broad in the narrowest part, with high land on both sides, and deep water close to both shores in most parts of it, until you are 8 miles up it, you will then rise the ground at once to 9 fathoms, and will afterwards have gradual soundings up to the head, and good anchorage. A little way inland from the head of the bay, you have a very extensive prospect of the interior part of the country, which appears to be all a barren rock, of a pretty even height, and watered by a great number of ponds, with which the whole country very much abounds. On the S. W. side of Bear island (which is the easternmost, and largest in the mouth of the bay) is a small harbour, lying in E. N. E. $\frac{1}{2}$ a mile, wherein is from 10 to 22 fathoms water, before the mouth of which are sunken rocks that doth not break but in bad weather. At the west entrance into White Bear bay, is a high round white island; and S. S. W. $\frac{1}{2}$ a mile from the White island is a black rock above water. The best passage into the bay from the westward, is on the west side of this rock, and between the White island

and Bear island; there are sunken rocks $\frac{1}{2}$ a league to the westward of the White island, some of which are above a mile from the shore.

Five miles to the westward of White Bear bay, and N. by W. $\frac{1}{4}$ W. from Ramea Columbe, are 2 small harbours, called Red island harbours, formed by an island of the same name, lying close under the land; that lying to the westward of the island is the largest and best, wherein is from 10 to 6 fathoms, good anchorage: To sail into it, keep the island close aboard, the outer part of which is red steep cliffs.

N. W. by W. 3 leagues from Ramea Columbe, lie the Burgeo isles, which are a cluster of islands extending along the shore, east and west about 5 miles, forming several snug and commodious harbours among them for fishing vessels, and are well situated for that purpose, there being good fishing ground about them. To sail into Burgeo from the eastward, the safest passage is on the N. E. side of Boar island, which is the northernmost, and lies N. W. from Ramea Columbe; S. E. by E. $\frac{1}{2}$ a league from this island is a rock that uncovers at low water, on which the sea generally breaks; You may go on any side of this rock, there being very deep water all round it; as soon as you are to the N. W. of it, keep the north side of Boar island on board, and steer W. by S. $\frac{1}{4}$ S. for Grandy's cove, the north point of which is the first low point on your starboard bow, haul round that point, and anchor in the cove in 14 fathoms, and moor with a fast on shore: But the best place for great ships to anchor, is between Grandy's cove, and a small island lying near the west point of Boar island, in 20 or 24 fathoms, good ground and sheltered from all winds. To sail into Grandy's cove from the westward within the islands, it is dangerous, unless well acquainted, by reason of sunken rocks in the passage; but there is a good passage from the southward between Burgo Columbe, which is a high round island, and Recontre, (which is the highest of all the islands) you must steer in N. W. between the rocks above water lying to the eastward of Columbe, and then to the southward of Recontre; as soon as you are within these rocks, keep the islands on board; there are several safe passages in from the southward and eastward, between the islands, and good anchorage; and in bad weather all the sunken rocks discover themselves, and you may run in any where without fear; these isles do not abound with either wood or water.

Wolfe bay lies in N. E. $\frac{1}{2}$ N. 1 league, the entrance is N. E. 2 miles from Boar island, and 2 miles to the westward of Fox island harbours; the east point of the entrance is low ragged rocks, off which is a sunken rock, a $\frac{1}{4}$ of a mile from the shore, whereon the sea breaks in bad weather. Near the head of the bay is tolerable good anchorage, and plenty of wood and water.

Round the west point of Wolfe bay is King's harbour, which lies in N. E. by N. $\frac{1}{4}$ of a mile, before the mouth of which is a cluster of little islands, 1 of which is pretty high: To sail into it keep the east point of the islands on board, and steer N. W. by N. and N. N. W. for the entrance of the harbour, and anchor under the east shore, in 9 fathoms water.

On the south sides of the islands, before King's harbour, and N. N. E. 1 mile from Boar island, is the entrance into the Ha Ha, which lies in west 1 mile, is about $\frac{1}{4}$ of a mile broad, wherein is from 20 to 10 fathoms, and good anchorage in every part of it: Over the south point of the entrance into this harbour is a high green hill, and a cable's length and a half from the point, is a sunken rock that always shews itself: Over the head of the Ha Ha, is Richard's head, mentioned as a mark for running upon Ramea shoal.

Four miles to the westward of the Burgeo isles is the Great Barrysway point, which is a low white rocky point, and N. W. by N. half a league from this point is the west entrance into the Great Barrysway, wherein is room and depth of water for small vessels: Between the Burgeo isles and the Great Barrysway point are several sunken rocks, some of which are half a league from the shore.

N. W. by W. $\frac{1}{2}$ W. 4 leagues from the Burgeo isles is the bay of Connoir, the east point of which is something remarkable, rising with an easy ascent to a moderate height, and much higher than the land within it; the top of it is green, but

down by the shore is white; the west point of the bay is low and flat, to the westward of which are several small islands: The bay lies in N. by E. 1 league from the entrance to the middle head, which lies between the two arms, and is half a league broad, with 14, 12, 10, and 8 fathoms close to both shores, good anchorage and clear ground, open to the S. S. W. and southerly winds; but the N. E. arm affords shelter for small vessels from all winds. To sail into it, keep the starboard shore best on board, and anchor before a small cove on the same side near the head of the arm, in $3\frac{1}{2}$ fathoms; towards the head of the arm, on the N. W. side is a bank of sand and mud, whereon one might run a ship and receive no damage.

Two leagues to the westward of Connoir, lies the bay of Cutteau, wherein is only shelter and depth of water for small vessels and fishing shallops: in sailing in or out of the bay keep the west point close on board, in order to avoid the many sunken rocks in the mouth of it.

Round the west point of Cutteau is Cinq Serf, wherein are a great many islands which form several small snug harbours, wherein is room and depth of water sufficient for fishing vessels, with conveniences for fisheries. Right off Cinq Serf, about half a league from the shore, is a low rocky island. The safest passage into the largest harbour is to the westward of this rock, keep in pretty near it, and steer in N. E. $\frac{1}{2}$ E. keeping the S. E. shore on board, until you are abreast of a small woody island, which is the easternmost but one, and lies about $\frac{1}{4}$ of a mile to the N. E. of a white rock in the middle of the passage, then haul short round this island, and anchor behind it in 7 fathoms water, covered from all winds, or you may continue your course up to the head of the arm and anchor in 4 fathoms water.

Four miles to the westward of the rocky island off Cinq Serf, is the harbour of Grand Bruit, which is a small commodious harbour, and well situated for a fishery: it may be known by a very high remarkable mountain over it, $\frac{1}{2}$ a league inland, which is the highest land on all the coast, down which runs a considerable brook, which empties itself in a cascade into the harbour of Grand Bruit. Before the mouth of the harbour are several small islands the largest of which is of a tolerable height with three green hillocks upon it. A little without this island is a round rock, pretty high above water, called Columbe of Grand Bruit; and $\frac{1}{4}$ of a mile to the southward of this rock, is a low rock; in the direct line between this low rock and the rocky island off Cinq Serf, $\frac{1}{2}$ league from the former, is a sunken rock, whereon the sea doth not break in fine weather. The safest passage into Grand Bruit is to the N. E. of this rock, and off the islands lying before the harbour between them and the 3 islands (which are low and lay under the shore) and after you are to the northward of the sunken rock above mentioned there is no danger but what shews itself. The passage into the harbour is very narrow, but bold to both sides. The harbour lies in north $\frac{1}{2}$ a mile and is $\frac{3}{4}$ of a mile broad in the broadest part, wherein is from 4 to 7 fathoms water.

To the westward of Grand Bruit, between it and La Poil Bay, lies the bay of Rotte, wherein are a great many islands and sunken rocks. The southernmost island is a remarkable high round rock, called Columbe of Rotte, and lies W. by N. 9 leagues from the southernmost of the Burgeos. Between this island and Grand Bruit is a reef of rocks, some above and some under water, but do not lay to the southward of the direct line between the islands. Within the isles of Rotte are shelter for shipping. The safest passage in, is to the westward of the islands between them and the island called Little Ireland, which lies off the east point of La Poil bay.

The bay of La Poil, which is large and spacious, with several commodious harbours, lies W. 10° N. 10 leagues from the southernmost of the Burgeos: W. by N. 14 leagues from the isles of Ramea, and near 12 leagues to the eastward of Cape Ray. It may be known by the high land of Grand Bruit, which is only 5 miles to the eastward of it; and likewise by the land on the east side of the bay which rises in remarkable high craggy hills. One mile S. S. W. from the east point lies Little Ireland, a small low island invironed with sunken rocks, some of

which are $\frac{1}{3}$ of a mile off; N. N. W. $\frac{1}{2}$ a mile from this island is a sunken rock that shews itself at low water, which is the only danger going into the bay, but what lies very near the shore. Two miles within the west point of the bay, and N. N. W. $\frac{1}{2}$ W. 2 miles from Little Ireland, is Tweeds, or Great Harbour, the S. point of which is low; it lies in west 1 mile and is a cable's length and a $\frac{1}{2}$ broad in the narrowest part. To sail into it keep the north shore on board, and anchor near the head of the harbour, in 13 or 20 fathoms clear ground, and sheltered from all winds. In this harbour are several conveniencies for erecting of stages, and drying of fish. Half a mile to the northward of Great Harbour, is Little Harbour, the north point of which is the first high bluff head on the west side of the bay, (called Tooth's Head) the harbour lies in west 1 mile, is not quite two cables length broad in the broadest part. To sail into it, give the S. point a small birth, and anchor about half way up the harbour, in 10 fathoms water before the stage, which is on the north side.

Opposite to Tooth's Head, on the east side of the bay, is Gally Boys Harbour, a small snug and commodious harbour for ships bound to the westward: Near the south point of the harbour are some hillocks close to the shore; but the north point is high and steep, with a white spot in the cliff. In sailing in or out of the harbour keep the north side on board; you must anchor as soon as you are within the inner south point, in 9 or 10 fathoms, good ground, and sheltered from all winds.

Two miles to the northward of Tooth's Head, on the same side of the bay, is Broad Cove, wherein is good anchorage in 12 and 14 fathoms water. Off from the north point of the cove, stretches out a bank into the middle of the bay, whereon is from 20 to 30 fathoms, a stony and gravelly bottom. One mile to the northward of Gally Boys Harbour, between two sandy coves on the east side of the bay, and near 2 cables length from the shore, is a sunken rock that just uncovers at low water.

Two leagues up the bay, on the east side, is the N. E. arm, which is a spacious, safe, and commodious harbour. To sail into it give the low sandy point on the S. E. side a small birth, and anchor above it where you please, in 10 fathoms water, good holding ground, and sheltered from all winds, and very convenient for wooding and watering.

A little within the west point of La Poil bay, is Indian Harbour, and de Plate, two small coves conveniently situated for a fishery and into which small vessels can go at high water.

From Little Ireland Island to Harbour La Cove, and Moine bay, the course is W. $\frac{3}{4}$ S. 4 leagues; between them lies the bay of Garia, and several small coves, wherein are shelter for small vessels, and conveniencies for fisheries; before which are several small islands, and sunken rocks lying along the shore, but none of them lie without the above course. In bad weather the sunken rocks all discover themselves. To sail into the bay of Garia, which lies midway between Poil and Harbour La Cove, you will, in coasting along the shore, discover a white head, which is the south point of an island lying under the land, off the east point of the bay, a little to the westward of 2 green hillocks on the main: you must bring this white point to bear north, and steer in directly for it; keep between it and the several islands that lie to the S. W. from it. From this point, the course into the bay is N. W. by N. keeping the east point on board, which is low. In this bay is plenty of timber, not only for erecting of stages, but large enough for building of shipping.

The S. W. point of the entrance into Harbour La Cove, called Rose Blanche Point, (near to which are rocks above water) is tolerable high, and the land near the shore over Harbour La Cove and La Moine Bay is much higher than any land near them, by which they may be known. La Moine bay lies in N. N. E. $\frac{3}{4}$ E. $1\frac{1}{2}$ league, and is $\frac{1}{4}$ of a mile broad in the narrowest part. Off the east point are some small islands, and rocks above water. To sail into it, keep the west point on board until you have entered the bay, then edge over to the east shore and steer up to the head of the bay, where there is good anchorage in 10 and 11

fathoms, and plenty of wood and water. Your course into Harbour La Cove, which lies at the west entrance into La Moine bay, is N. W. between a rock above water in the mouth of the harbour and the west shore; as soon as you are within the rock, haul to the westward, into the harbour, and anchor in 8 or 6 fathoms water, and moored with a fast on shore; or you may steer into the arm, which lies in N. E. by N. from the harbour, and anchor in 20 fathoms, sheltered from all winds. Harbour La Cove, is a small snug harbour for small vessels, and well situated for a fishery, where there has been one for several years.

Round to the westward of Rose Blanche Point, is the harbour of the same name, a small snug harbour, well situated for a fishery, with good conveniences. The channel into the harbour is between the island lying off the west point, and Rose Blanche Point; you must give the island a good birth, because of some sunken rocks which lie on the east side of it, and keep the west side of a small island, which lies close under Point Blanche, close on board, and anchor within the N. E. point of the said island, in 9 fathoms water. To sail into the N. W. part of the harbour is dangerous, unless acquainted, by reason of several small islands, and sunken rocks in it.

Mull Face is a small cove 2 miles to the westward of Rose Blanche Point, wherein is anchorage for small vessels in 4 fathoms. Off the west point of the cove are two small islands, and several sunken rocks. The passage in, is to the eastward of the islands, and sunken rocks.

Two leagues to the westward of Rose Blanche Point are the Burnt Isles, which lie close under the shore, and are not to be distinguished from it, behind which are shelter for small vessels, and good fishing conveniences. Off these islands, are sunken rocks, some of which are $\frac{1}{2}$ a mile from the shore.

Three leagues and an $\frac{1}{2}$ to the westward of Rose Blanche Point, is Conny bay, and Otter bay; in the latter is good anchorage for shipping in 7, 8 and 9 fathoms, but it is dangerous going in, because of several sunken rocks without the passage, which in fine weather do not shew themselves.

West $\frac{3}{4}$ S. 4 leagues from Rose Blanche Point, are the Dead Islands, which lay close under the shore; in the passage between them and the main is good anchorage for shipping, in 6, 7 and 8 fathoms, sheltered from all winds, but it is very dangerous going in unless well acquainted, by reason of several sunken rocks lying in both the east and west entrance. The entrance from the eastward may be known by a very white spot on one of the islands; bring this white spot to bear N. W. by N. and steer in for it, keeping the rocks on the starboard hand nearest on board, and leave the island on which the white spot is on your larboard side. The west entrance may be known by a tolerable high white point on the main, a little to the westward of the islands; on the west part of this point is a green hillock; keep this white point close on board, until you are within a little round rock, lying close to the westernmost island at the east point of the entrance; then haul over to the eastward for the Great Island, (on which is a high hill,) and steer in N. E. by E. $\frac{1}{2}$ E. keeping the little rock before mentioned in sight.

From the Dead Isles to Port aux Basque, the course is west 4 miles: Between them lie several small islands close under the shore, and sunken rocks, some of which are $\frac{1}{2}$ a mile from the shore. Port aux Basque, which is a small commodious harbour, lies $2\frac{1}{2}$ leagues to the eastward of Cape Ray. To steer in for it, bring the Sugar Loaf over Cape Ray to bear N. W. $\frac{1}{2}$ W. or the west end of the Table Mountains, to bear N. W. Steer in for the land, with either of them as above, and you will fall directly in with the harbour, the S. W. point of which is of a moderate height, and white, called Point Blanche, but the N. E. point is low and flat, close to which is a black rock above water; in order to avoid the outer shoal, (on which is 3 fathoms,) and which lies east $\frac{3}{4}$ of a mile from Point Blanche, keep the said point on board, and bring the flag-staff which is on the hill, that is over the west side of the head of the harbour, on with the S. W. point of Road Island, and keeping in that direction will carry you in the middle of the channel, between the east and west rocks, the former of which always shew themselves, and which you leave on your starboard hand. You must continue this

course up to Road Island, and keep the west point on board, in order to avoid the Frying-pan Rock, which stretches out from a cove on the west shore, opposite the island; and as soon as you are above the island, haul to the N. E. and anchor between it and Harbour Island, where it is most convenient in 9 or 10 fathoms, good ground, and sheltered from all winds; this is what is called the Road or Outer Harbour, and is the only anchoring place for men of war: but fishing ships always lie up in the Inner Harbour. To sail into it, you must steer in between the west shore and the S. W. end of Harbour Island, and anchor behind the said island, in 3 or 4 fathoms. In some parts of this harbour ships can lie their broadsides so near the shore as to reach it with a plank. This harbour hath been frequented by fishermen for many years, and is well situated for that purpose, and has excellent conveniences.

One mile to the eastward of Port aux Basque is Little bay, a narrow creek, lying in N. E. near half a league, wherein is room and depth of water sufficient for small vessels.

Two miles to the westward of Port aux Basque is Grand bay, in and before which are several islands and sunken rocks, the outermost of which are not above a quarter of a mile from the shore, on which the sea generally breaks. In this bay is anchorage for small vessels, but not water sufficient for large ships. From Port aux Basque to Cape Ray, the course is west 1 league to Point Enragee, then N. W. $1\frac{1}{2}$ league to the cape; off Point Enragee (which is a low point) and to the eastward of it, are some sunken rocks, one mile from the shore on which the sea breaks.

Cape Ray is the S. W. extremity of Newfoundland, situated in the latitude $47^{\circ} 37' N.$ The land of the cape is very remarkable near the shore; it is low, and 3 miles inland is a very high Table Mountain, which rises almost perpendicular from the low land, and appears to be quite flat at top, except a small hillock on the S. W. point of it. This land may be seen in clear weather 16 or 18 leagues. Close to the foot of the Table Mountain, between it and the point of the cape, is a high round hill, resembling a sugar loaf, (called the Sugar Loaf of cape Ray,) whose summit is something lower than the top of the Table Mountain; and to the northward of this hill, under the Table Mountain, are 2 other hills resembling sugar loaves, which are not so high as the former; one or other of those Sugar Loaf hills are from all points of view seen detached from the Table Mountain. On the east side of the cape, between it and Point Enragee, is a sandy bay, wherein shipping may anchor with N. W. northerly and N. E. winds, but they must take care not to be surprised there with the S. W. winds, which blow right in and cause a great sea, and the ground is not the best for holding, being all a fine sand. Towards the east side of this bay is a small ledge of rocks, 1 mile from the shore, on which the sea does not break in fine weather. The best place for great ships to anchor is to bring the point of the cape to bear W. by N. and the high white sand hill in the bottom of the bay N. N. E. in 10 fathoms water but small vessels may lie much farther in. You must take care not to run so far to the eastward as to bring the end of the Table Mountain on with the sand hill in the bottom of the bay, for fear of the ledge of rocks before mentioned. W. by N, $\frac{1}{2}$ N. near 1 mile from the point of the cape, is a small ledge of rocks, whereon the sea always breaks; and 1 mile to the northward of the cape, close under the land, is a low rocky island in the channel between the ledge and the cape: also between it and the island is 14 and 15 fathoms, but it is not safe for shipping, on account of the tides, which run here with great rapidity. The soundings under 100 fathoms do not extend above 1 league from the land to the westward and northward of the cape, nor to the southward and eastward of it, except on a bank which lies off Port aux Basque, between 2 or 3 leagues from the land, whereon is from 70 to 100 fathoms good fishing ground. S. E. by E. $\frac{1}{2}$ E. 3 leagues from Port aux Basque, in the latitude of $47^{\circ} 14' N.$ is a bank whereon is 70 fathoms. *Note.*—The true form and extent of these banks are not yet sufficiently known to be described in the AMERICAN COAST PILOT.

From Cape Ray to Cape Anguille, the course is N. 16° W. distant 6 leagues;

Cape Anguille is the northernmost point of land you can see, after passing to the northward of Cape Ray. In the country, over the cape, is high Table Land, covered with wood; between the high land of the two capes, the land is low, and the shore forms a bay, wherein are the Great and Little Rivers of Cod Roy; the Great River, which is the northernmost, is a bar harbour, and will admit vessels of 8 and 10 feet draft at high water, and in fine weather. It is a good place for a salmon fishery, and for building of small vessels and boats, &c there being plenty of timber. You may approach the shore between the 2 capes to $\frac{1}{2}$ a league, there being no danger that distance off.

The island of Cod Roy lies 2 miles to the southward of Cape Anguille, close under the high land, it is a low, flat, green island, of near 2 miles in compass, it forms (between it and the main) a small snug harbour for fishing shallops, and is frequented by vessels of 10 and 12 feet draft, but they lie aground the greatest part of the time, there being not much above that depth of water in the safest part of the harbour at high water; the channel in, is from the southward, wherein is 2 fathoms at low water. In that from the northward, is not above 3 feet; this harbour is very convenient for the fishery, with good beaches for drying of fish.

In the road of Cod Roy is very good anchorage for shipping in 8, 7, and 6 fathoms, a clay bottom, sheltered from the N. W. northerly, and S. E. winds; the best place is to bring the south point of the island to bear west, and the point of the beach, on the inside of the island, at the south entrance into the harbour on with a point on the main to the northward of the island, you will then be in 7 fathoms, and nearly half a mile from the shore. One league to the southward of Cod Roy is a high bluff point, called Stormy Point, off which stretches out a shoal half a mile; this point covers the road from the S. E. winds and it is good anchoring any where along the shore, between it and the island.

The island of St. Paul lies S. 53° W. $13\frac{1}{2}$ leagues from Cape Ray in Newfoundland, and N. 42° E. 3 leagues from the north cape, in the island of Cape Breton, in the latitude $47^{\circ} 12' 30''$ N. it is about 5 miles in compass (including the small island at the N. E. end of it) with three high hills upon it, and deep water close to the shore all round.

Cape North is a lofty promontory at the N. E. extremity of the island Cape Breton, in the latitude $47^{\circ} 5'$ N. The entrance into the gulf of St. Lawrence is formed by this cape and Cape Ray; they lie from each other N. 52° E. and S. 52° W. distant 17 leagues; in the channel between them is no ground under 200 fathoms.

A south east moon makes high water by the shore in most places, and flows up and down, or upon a perpendicular 7 or 8 feet; but it must be observed, that they are every where greatly governed by the winds and weather. On the sea coast between Cape Chapeaurouge, and St. Peter's, the current sets generally to the S. W. On the south side of Fortune bay it sets to the eastward, and on the north side to the westward. Between Cape la Hune and Cape Ray, the flood sets to the westward in the offing; sometimes 2 or 3 hours after it is high water by the shore; but this tide or current (which is no where strong but at Cape Ray) is very variable, both with respect to its course and velocity, sometimes it sets quite the contrary to what might be expected from the common course of the tides, and much stronger at one time than another, which irregularities cannot be accounted for with certainty, but seem to depend mostly on the winds.

N. B. The Burgeo Isles, by an observation of the eclipse of the sun, on the 5th of August, 1765; are 3h. $50' 4''$ or $57^{\circ} 31'$ W. from the meridian of London.

From this observation the longitude of the following places are deduced, and their latitudes are from astronomical observations made on shore, except that of Cape Race, which was observed at sea; some one of those places being generally

the first that ships make bound to southern parts of Newfoundland, or into the gulf or river of St. Lawrence, or from which they take their departure, at leaving those parts; it is hoped the determining their true position will prove useful to navigators.

	Latitude.	Longitude.
Burgeo Isles	47 36 N.	57 31W
Cape Ray	47 37	59 8
Island of St. Paul	47 12	59 57
Cape North, the N. E. extremity of Cape Breton	47 5	60 8
Island of Scatarie, which lies off the S. E. point of } Cape Breton }	46 1	61 57
Island of St. Peter's	46 46	56 5
Cape Chapeaurouge, or the Mountain of the Red Hat	46 53	55 17
Cape Race	46 40	52 38
St. John's	47 34	52 18



Directions for navigating the West Coast of Newfoundland.

N. B. All Bearings and Courses hereafter mentioned, are the true Bearings and Courses, and not by Compass.

Cape Anguille lies 6 leagues to the northward of Cape Ray, N. E. by N. 17 leagues from the island of St. Paul, and is in the latitude of $47^{\circ} 55'$ N. it is high land, covered with wood; 2 miles to the southward of this cape lies the small island and harbour of Cod Roy before described. From Cape Anguille to Cape St. George, the course is N. $\frac{1}{4}$ E. distant 11 leagues; these two capes form the bay of St. George, which lies in N. E. 18 leagues from the former, and east 15 leagues from the latter; at the head of this bay on the south side round a low point of land is a very good harbour, wherein is good anchorage in 8, 10 or 12 fathoms water. In several parts about this harbour are convenient places for fishing works, with large beaches, and good fishing ground in the bay, which early in the spring abound with fish, and formerly was much frequented; a very considerable river empties itself into the head of this bay, but it is not navigable for any thing but boats, by reason of a bar across the entrance, which lies exposed to the westerly winds. On the north side of this bay, before the Isthmus of Port-a-Port, is good anchorage in 7 or 8 fathoms water, with northerly winds; from off this place stretches out a fishing bank two thirds across the bay, whereon is from 7 to 18 fathoms water, a dark sandy bottom.

Cape St. George lies in the latitude of $48^{\circ} 28'$; it may be easily known, not only by its being the north point of the bay of the same name, but by the steep cliffs on the north part of it, which rises perpendicular from the sea to a considerable height, and by Red Island which lies 5 miles to the northward of the cape, and half a mile from the shore: This island is about 1 league in circuit, and tolerable high, and the steep cliffs round it are of a reddish colour. Under the N. E. end of the island, and before a sandy cove on the main, which lies just to the northward of the steep cliffs is anchorage in 12 or 14 fathoms water, where you are covered from the S. W. winds by the island, and from the southerly and easterly winds by the main, but there is no riding here with northerly and N. W. winds; this place formerly was much frequented by fishers.

From Red Island to long Point, at the entrance into the bay of Port-a-Port, the course is N. 52° E. distant $7\frac{1}{2}$ leagues. From Red Island to Guernsey Island in the mouth of the bay of Islands, the course is N. E. $\frac{1}{4}$ N. $15\frac{1}{2}$ leagues. From Red Island to Cape St. Gregory, the course is N. E. $\frac{1}{4}$ N. 20 leagues. From Red Island to the bay of Ingornachoix, the course is N. N. E. $\frac{1}{4}$ E. distant 48

leagues; and from Red Island to Point Rich, the course is N. 29° E. distant 48 leagues and 2 miles.

The land between Red Island, and the entrance into Port-a-Port, is of a moderate height, or rather low, with sandy beaches, except one remarkable high billock (called Round-head,) close to the shore, and is 2 leagues to the N. E. of Red Island; but up in the country over Port-a-Port, are high lands, and if you are 4 leagues at sea you will not discern the Long Point of land, which forms the bay of Port-a-Port: This bay is capacious, being near 5 miles broad at the entrance, and lies into the southward 4 leagues, with good anchorage in most parts of it. The west point of the bay (called Long Point,) is a low rocky point from which stretches out a reef of rocks N. E. nearly 1 mile; S. E. by S. 4 miles from Long Point, and half a league from the east shore, lies Fox Island, which is small, but tolerable high; from the north end of this island stretches out a shoal, near 2 miles to the northward, called Fox's Tails; nearly in the middle of the bay, between the island and the west shore, lies the middle ground, on one place of which, near the S. W. end, is not above 3 or 4 feet water, at low water; at the head of the bay, is a low point called Middle Point, stretching out into the middle of the bay; from off this point is a shoal pit, which extends near 2 miles to the northward, part of which dries at low water: From the head of the east bay over to the bay St. George, is a little more than a quarter of a mile: this Isthmus is very low, with a pond in the middle of it, into which the sea washes in gales of winds from the southward at high tides. On the east side of the Isthmus is a tolerable high mountain, which appears flat at top, and rises directly from the Isthmus, on the north side of the mountain; and about 5 miles from the Isthmus is a conspicuous valley or hollow, which, together with Fox island, serves as a leading mark for coming in and out of this bay, as is hereafter described: Two leagues to the N. E. from the entrance of the bay, and is half a league from the shore lies Shag Island, which appears at a distance like a high rock and is easy to be distinguished from the main; west 1 league from the Shag Island, lies the middle of Long Ledge, which is a narrow ledge of rocks stretching N. E. and S. W. 4 miles, the N. E. part of them are above water; the channel into the bay of Port-a-Port, between the S. W. end of this ledge, and the reef off the west point of the bay is 1 league wide. To sail into Port-a-Port, coming from the S. W. come not nearer the pitch of the Long Point of the bay, than 1½ mile, or haul not in for the bay, until you have brought the valley in the side of the mountain before mentioned, (which is on the east side of the Isthmus) over the east end of Fox Island, or to the eastward of it, which will then bear S S. E. ¼ E. you will be then clear of the Long Point reef, and may haul into the bay with safety; coming from the N. E. and without the Long Ledge, or turning into the bay in order to keep clear of the S. W. point of the Long Ledge, bringing the Isthmus or the foot of the mountain, (which is on the east side of the Isthmus) open to the westward of Fox island, near twice the breadth of the island (the island will then bear S. ¼ E.) you may haul into the bay with this mark, and when Shag Island is brought on with the foot of the high land which is on the south side of Coal River, and will then bear E. by N. ¼ N. you will be within the Long Ledge; there is a safe passage into the bay between the Long Ledge and the main, passing on either side of Shag Island, taking care to avoid a small round shoal which lies S. W. 1 mile from the island, on which is 2¼ fathoms water. To sail up to what is called the West bay, and into Head Harbour, (which are the safest anchorages, and the best places to wood and water at) keep the west shore on board, and in turning between it and the middle ground, observe on standing over to the middle to put about as soon as you shoalen your water to 8 fathoms, you may stand to the spit of the middle point, to 6 or 5 fathoms. To sail up to what is called the East Road, which lies between Fox island and the east shore, observe about 1 league N. E. from the island, a high bluff head, being the south part of the high land that rises steep directly from the shore, keep this head bearing to the southward of east until the Isthmus is brought to the eastward of Fox Island, which will then bear S. S. W. you will then be with-

in the shoal (called Fox's Tail) and may then haul to the southward, and anchor any where between the island and the main: To sail up the east bay passing between the island and the east shore, observe the foregoing directions; and after you are above the island, come not nearer the main than half a mile until you are abreast of a bluff point above the island, called Road Point, just above which is 12 fathoms, is the best anchorage with N. E. winds; and to sail up to this anchorage between the middle ground and the Fox's Tail, bring the said point on with the S. W. point of the island, this mark will lead you up in the fair way between the 2 shoals. What is called the West Road, lies before a high stone beach; about 2 miles within Long Point, where you ride secure with westerly and N. W. winds in 10 or 12 fathoms water, the said beach is steep too, and is an excellent place for landing and drying of fish, for which it has been formerly used; there is likewise a good place at the north end of Fox Island for the same purpose; and the whole bay and adjacent coast abound with cod, and extensive fishing banks lie along the sea coast.

From Long Point, at the entrance of Port-a-Port, to the bay of Islands, the direct course is N. 35° E. distant 8 leagues, but coming out of Port-a-Port, you must first steer north 1 or 1½ league, in order to clear the Long Ledge, then N. E. by N. or N. E.; the land between them is of considerable height, rising in craggy barren hills directly from the shore. The Bay of Islands may be known by the many islands in the mouth of it, particularly the three named Guernsey Island, Tweed Island, and Pearl Island, which are nearly of equal height with the lands on the main; if you are bound for York or Lark Harbours which lay on the S. W. side of this bay, and coming from the southward, steer in between Guernsey Island and the south head, either of which you may approach as near as you please; but with S. S. W. and southerly winds come not near the south head, for fear of calms and gusts of wind under the high land, where you cannot anchor with safety; you may sail in or out of the bay by several other channels, formed by the different islands, there being no danger but what shews itself, except a small ledge of rocks which lies half a mile from the north Shag rock, and in a line with the two Shag rocks in one; if you bring the south Shag rock open on either side of the north rock, you will be clear either to the eastward or westward of the ledge; The safest passage into this bay from the northward, is between the two Shag rocks and then between Tweed island and Pearl island. From Guernsey Island to Tortoise head, (which is the north point of York harbour, and the S. E. point of Lark harbour) the course is S. by E. 5 miles; Lark harbour lies in S. W. near 2 miles, and is one third of a mile broad in the narrowest part, which is at the entrance. To sail into it with large ships keep the larboard shore on board, but with small vessels there is no danger, you may anchor with a low point on the starboard side bearing west, N. W. or north, and ride secure from all winds.

From Tortoise head into York harbour, the course is S. W. near 1 league; between the said head and Governor's island, which lies before the harbour, is good room to turn, and anchorage all the way, but regard must be had to a shoal which spits off from a low beach point (called Sword point) on the west end of Governor's island; to avoid which, keep a good part of Seal island open to the northward of Governor's island, until you are above this point; in turning up the harbour, stand not nearer the next point on the island (off which it is flat) than to bring Tortoise head touching Sword point, the best anchorage is to keep Tortoise head open to the said point, and anchor in 10 fathoms along the sandy beach on the main; farther up within the island is too deep water for anchoring all the way through the passage within the island: This harbour is very convenient to wood and water at. W. S. W. and S. W. winds blow here sometimes with great violence, occasioned by the nature of the lands, there being a valley, or low land between this harbour and Coal river, which is bounded on each side with high hills; this causeth these winds to blow very strong over the low land.

Harbour island lies at the entrance of the River Humber, and S. E. 7 miles from Guernsey island at the S. W. point of which is a small snug harbour (cal-

led Wood's harbour, wherein is 5 and 4 fathoms water, but the entrance is too narrow for strangers to attempt, and but 2 fathoms deep.

The River Humber, at about 5 leagues within the entrance, becomes narrow, and the stream is so rapid in places, for about 4 leagues up, to a lake, that it is with great difficulty a boat can be got up it; and at sometimes quite impracticable; this lake, which stretches N. E. $\frac{1}{2}$ N. is in length 7 or 8 leagues, and from 2 to 5 miles broad: The banks of this river, and the shores of the lake are well clothed with timber, such as are common in this country. This river is said to abound with salmon, in which has been formerly a very great salmon fishery.

The North and South Arms are only long inlets, in which is very deep water until you come to their heads.

A little within the entrance of the North Arm, on the starboard side, is a small cove, wherein a vessel might anchor in 30 fathoms water; 1 league within the entrance of the South Arm, on the starboard side, is a sandy cove, (being the second on that side,) wherein is anchorage in 16 fathoms water, and a good place to wood and water at; haul into the cove until the west point of it is brought on with the north point of the entrance of this arm, and there anchor; if you miss laying hold of this anchoring ground, there is a very good harbour at the head of the S. E. branch of this arm; on the east side of Eagle Island, between the North and South Arms, is anchorage in 8, 10, or 12 fathoms water: Under the north side of Harbour Island is good anchorage with S. W. winds, at a quarter of a mile from the island you will have a muddy bottom: Opposite to the S. E. end of Harbour Island, on the south side of this bay, is Frenchman's Cove, wherein is good anchorage in 20, 16, or 12 fathoms water: it is very probable that none of these anchorages will ever be frequented by shipping; yet it is necessary to point them out, as it may happen, that in coming into the bay with a gale of wind at S. W. it may blow so hard out of York Harbour, that no vessel can carry sail to work into anchoring ground; at such times they will be glad to get to an anchor in any place of safety.

The Bay of Islands has been much frequented formerly for the cod fishery; the best place for fishing ships to erect stages and keep boats, is in Small Harbour, which lies a little without the South head, and the large beach on Sword point, on Governor's island, is an excellent place for drying of fish.

From Guernsey island to Bonne bay, the course is first N. N. E. 6 leagues then N. E. 3 leagues: The land near the shore, from the north Shag rock to Cape St. Gregory, is low, along which lay sunken rocks, some of which are a $\frac{1}{4}$ of a mile from the shore, but a very little way inland, it rises into a mountain terminating at top in round hills: from Cape St. Gregory to Bonne bay, the land rises in hills directly from the sea to a considerable height; Cape St. Gregory is high, and the northernmost land you can see, when coasting along shore between Red island and the Bay of islands.

Bonne bay may be easily known if you are not above 4 or 5 leagues off at sea by the lands about it, all the land on the S. W. side of the bay being very high and hilly; the land on the N. E. side, and from thence along the sea coast to the northward, is low and flat; but about one league up inland, are a range of mountains which run parallel with the sea coast: you cannot distinguish the low land if you are 6 or 7 leagues off at sea. Over the south side of this bay is a very high mountain, terminating at top in a remarkable round hill, which is very conspicuous when you are to the northward of the bay. This bay lies in S. E. two leagues, then branches into two arms, one tending to the southward and the other to the eastward, the best anchorage is in the southern arm; small vessels must anchor just above a low woody point, (which is on the starboard side of the bay, at the entrance into this arm,) before a sandy beach, in 8 or 10 fathoms water, about a cable's length from the shore: but large ships must run higher up, unless they moor to the shore, they cannot anchor in less than 30 or 40 fathoms, but at the head of the arm, where there is but 24 fathoms; notwithstanding the great depth of water, you lay every where in perfect security, and very convenient to wood and water, there being great plenty of both. To sail into the

east arm, keep the S. E. point, or starboard shore on board; short round that point is a small snug cove, wherein is good anchorage in 16 or 18 fathoms water, and moor to the shore; a little within the north point of this arm is a very snug harbour for small vessels, wherein is 7 and 6 fathoms water. In sailing in or out of this bay with S. W. winds, come not near the weather shore, for fear of being becalmed under the high land, or meeting with heavy gusts of wind, which is still worse, and the depth of water is too great to anchor.

From Bonne bay to Point Rich, the course along shore is N. N. E. distant 24 leagues; but in coming out of the bay, you must first steer N. N. W. and N. by W for the first 3 leagues, in order to get an offing. Ten miles to the northward of Bonne bay is a pretty high white point, (called Martin point,) three quarters of a mile right off from this point is a small ledge of rocks whereon the sea breaks: One league to the northward of Martin point, is a low white rocky point, (called Broom point;) half a mile S. W. from this point lies a sunken rock that seldom shews itself. On the N. E. side of Broom point lies the bay of St. Paul, wherein vessels may anchor with southerly and easterly winds, but lies quite exposed to the sea winds.

One league to the northward of the bay of St. Paul, is a pretty high point of land, (called Cow head;) it will have the appearance of an island, being only joined to the main by a very low and narrow neck of land; $\frac{1}{4}$ of a mile off this heap lies Steering island, which is low and rocky, and the only island on the coast between the Bay of islands and Point Rich. On the south side of Cow head is Cow cove, wherein is shelter for vessels with easterly and northerly winds; and on the north side of this head is Shallow bay, wherein is water sufficient for small vessels, and good fishing conveniencies; at the N. E. entrance into this bay are a cluster of rocky islands, which range themselves N. E. and S. W. and at the S. W. entrance are 2 rocks close to each other, which generally shew themselves; they lay a full cable's length from the shore, and there is a channel into the bay on either side of them. In sailing in or out of this bay, you may go on either side of Steering-island, which lies right before it, but come not too near the N. E. end, there being sunken rocks off that end. This place is the best situated for a fishery of any on the coast, there being excellent fishing ground about it.

From Steering island to Point Rich, the course is N. $20^{\circ} 45'$ E. distance 17 leagues: From Shallow bay to the south part of Ingornachoix bay is nearly a straight shore all the way, and neither creek or cove, where a vessel can shelter herself from the sea winds; there are some small sandy bays, where vessels may anchor with the land winds; 6 leagues to the northward of Steering island, and about $\frac{1}{2}$ a mile inland, is a remarkable hill, (called Portland,) it makes not unlike Portland in the English channel, and alters not in its appearance from any point of view.

Hawke's harbour and Port Saunders are safe and commodious harbours, situated in the bay of Ingornachoix, S. E. 2 leagues from Point Rich; at the entrance of these harbours lies an island, (called Keppel island,) which is not easily to be distinguished by strangers from the main: the channel into Hawke's harbour, (which is the southernmost,) lies between the island and the south shore; on the starboard shore entering into this harbour, and opposite to the west end of the island, begins a shoal, which stretches up along that shore 1 mile, the middle of which runs out into the harbour $\frac{2}{3}$ the breadth thereof, great part of this shoal dries at low water: Your course into the harbour is east, keeping mid channel, or rather nearest to Keppel island, until the east end thereof, (which is a low stone beach,) bears N. by E. or N. then steer S. E. $\frac{1}{2}$ E. for a small island you will see up the harbour, keeping the N. E. or larboard shore pretty well on board, and steer for the said little island; as soon as you have brought the point at the south entrance of the harbour to bear W. by N. $\frac{1}{2}$ N. and are the length of the S. E. point of a bay which is on the starboard side of the harbour, you will then be above the shoal, and may anchor in 12 fathoms water, or you may run within $\frac{1}{2}$ a mile of the small island and there anchor, where you will be more convenient to take in wood and water. To sail into Port Saunders, there is not

the least danger; leave Keppel island on your starboard side, and anchor as soon as you are $\frac{1}{2}$ a mile within the entrance, in 10 or 11 fathoms water; but if you run up towards the head of this harbour, keep the larboard shore on board, in order to avoid a ledge of rocks which lies nearly in the middle of the harbour. This is the best harbour for ships to lay in that are bound to the southward, as the other is for those bound to the northward; all the lands near these harbours are in general low, and covered with wood; you may occasionally anchor without these harbours, in the bay of Ingornachoix, according as the winds are.

Point Rich lies in the latitude of $51^{\circ} 41' 30''$; it is the S. W. point of a peninsula, which is almost surrounded by the sea; it is every where of a moderate and pretty equal height, and is the most remarkable point of land along the west side of Newfoundland, it projecting out into the sea farther than any other, from whence the coast each way takes a different direction.

Two miles N. E. from Point Rich is the harbour of Port-aux-Choix; it is but small, yet will admit of ships of large burthen, but they must moor head and stern, there not being room to moor otherwise. To sail into it, keep the starboard shore on board, and anchor just above a small island which lies in the middle of the harbour. In this harbour, and in Boat cove, which lies a little to the northward, are several stages, and good places for drying of fish.

Round the N. E. point of the Peninsula, lies the harbour of Old Port-aux-Choix, which is a small but safe harbour, in the entrance of which lies a small island called Harbour island, and between this island and the west point of the harbour, are rocks, some above, and some under water. To sail into this harbour on the west side of the island, keep the island close on board; but to sail in on the east side, give the N. E. point of this island a small berth; you may anchor any where on the S. E. or larboard side of the harbour, but come not near the N. W. or starboard side, there being a shoal of sand and mud all along that side.

From Point Rich to the Twin islands, (which are low, and the outermost islands in the bay of St. John,) the course is N. N. E. distance 4 leagues, and from the Twin islands to Point Ferolle, the course is N. E. $\frac{1}{2}$ N. 11 miles.

The bay of St. John lies between Point Rich and Point Ferolle; there are in it a great many islands and sunken rocks; the only island of any extent is that of St. John, which lies N. E. 3 leagues from Point Rich; on the S. W. side of this island is a small harbour, which seems not badly situated for the cod fishery, and it hath good conveniences for that purpose, but it is not a good place for shipping—they would be too much exposed to the S. W. winds, which send in a great sea. On the S. E. side of this island, opposite to the west end of Head island, is a small bay, wherein is anchorage in 16 or 14 fathoms water, and sheltered from most winds, and is the only anchoring place in the whole bay.

From the south part of Point Ferolle stretches out a ledge of rocks S. S. W. near 1 league; and along the shore to the river of Castors, (which is in the bottom of St. John's bay,) are sunken rocks 2 miles off.

Over the middle of the bay of St. John, is high table land, which is very steep on that side next the bay, and terminates that chain of mountains which runs parallel with the sea coast from Bonne bay.

The course of the tides along this coast are greatly governed by the winds, but when not interrupted by strong gales of long continuance, a S. E. by S. or S. S. E. moon makes high water, and flows up and down, or upon a perpendicular, seven or eight feet.

Directions for navigating on part of the N. E. side of Newfoundland, and in the Streights of Belle-Isle.

[N. B. All Bearings and Courses hereafter mentioned, are the true Bearings and Courses and not by Compass.]

ON the N. E. coast of Newfoundland, about 2 leagues from the main, are 2 islands, the northernmost of which is called Groias; the north end of this island is in the latitude of $51^{\circ} 00'$ north: at about 2 miles distance from this north end, are some rocks high above water.

The harbour of Croque bears N. W. by W. half W. 2 leagues from the north end of Groias island; the entrance is not easily distinguished by strangers till you draw near it; then you will discover a small island, or rock, close to the south head of the harbour; you may stand boldly in with the land, there being no danger but what shews itself, and lies very near the shore; as soon as you are within the heads, you will open the two arms; that to the S. W. is not safe to anchor in, being foul ground, and open to the N. E. winds; you may run up into the N. W. arm, until you are land-locked, and anchor where you please, from 16 to 19 fathoms water, every where very good ground. This is an excellent harbour, very convenient for the fishery, and plenty of wood and water.

From the north end of Groias island, along the coast to the White islands, the true course is N. by E. 12 leagues, but to give these islands and the Braha shoal a proper birth, make a N. N. E. course.

Between Croque and the bay of Griguet, are several good harbours with excellent fishing conveniences, particularly Great and Little St. Julian's Grands-way, Waterman's Cove, White's Arm, Zealot, Feshot, Goose Cove, Craimiliere, St. Anthony, and St. Lunare, which are not yet accurately described; there is no danger on the coast but what lies very near the shore; except the small shoal of Braha, which lies directly off the bay of the same name, 4 miles from the land on which the sea breaks in bad weather.

The bay of Griguet is situated on the N. E. coast of Newfoundland, in the latitude of $51^{\circ} 32'$ north; it is formed by Stormy cape to the north, and White cape to the south, and contains several good harbours for shipping of all kinds, wherein are many fishing conveniences.

Camel island lies in Griguet bay, is very high in the middle, like the back of a camel, and in sailing along the shore, is difficult to be distinguished from the main.

The north harbour lies within Stormy cape, at the entrance of which is a rock above water: you may go on either side of this rock, it being bold to all round, and anchor near the head of the harbour, in 6 fathoms water; in the entrance that leads to the N. W. and S. W. harbours, is a small rocky island, which makes the passage into those harbours narrow: the safest passage is to the northward of this island, giving the point at the entrance of the N. W. harbour a little birth; as soon as you are within the island, you will open the two harbours; that of the N. W. which is the largest, runs in N. W. near 2 miles; to sail up to the head of the harbour, the west side is the safest; you will at first have 14, 16 and 18 fathoms water, and after you are a little within the point, will meet with a bank whereon is 7 and 8 fathoms; being over it, you will again have 16 and 17 fathoms, and as you approach the head, will shoalen your water gradually to 5 fathoms, every where good anchoring, and sheltered from all winds.

The S. W. harbour runs in near 2 miles behind Camel's island: it is but a narrow arm, and hath in it from 10 to 4 fathoms water; there is a shoal at the entrance, but neither it nor the harbour are yet sufficiently examined, to give any direction about it here.

The two islands of Griguet lay on the outside of Camel's island, and together form between them several small, but very snug harbours for fishing vessels.

From Stormy cape to Cape de Grat, on the island of Quirpon, is N. by E. distant 3 miles and a $\frac{1}{2}$; between which is the harbour of Little Quirpon, form-

ed by the island of that name; there is no danger going in, but the shore itself; it is a small, safe, snug harbour, where fishing ships moor head and stern.

Quirpon island, which is the S. E. point that forms the entrance of the Straights of Belle-Isle, is barren and mountainous; Cape de Grat on the S. E. side, and the highest part of this island may be seen in clear weather 12 leagues.

White islands lay between Griguet and Cape de Grat, about 2 miles and a $\frac{1}{2}$ from the land; they are but small, and of a moderate height; on the inside of them are some rocks, both above and under water, but not dangerous, as they discover themselves even in fine weather; and the passage between them and the main, which is $\frac{1}{2}$ a league wide, is very safe.

De Grat and Pidgeon coves lay on the S. E. side of the island of Quirpon, and to the northward of Cape de Grat, in the mouth of which are some small islands, and rocks above water; behind these islands are shelter for shipping, in 4 fathoms water, and convenient places for fishing.

The passage into Great Quirpon harbour is on the N. W. side of the island of the same name, between it and Grave's island, which is an island in the mouth of the harbour; in approaching the entrance, you may make as free as you please with the island Quirpon, there being no danger but what shews itself, until you come to the entrance of the harbour, where there are shoals on your larboard side, which you avoid by keeping Black head, upon Quirpon, open of all the other land, until Cape Raven is brought over Noddy point; then haul in for the harbour, keeping about half a cable's length from the point of Grave's island; it is every where good anchoring within the said island, and room and depth of water for any ships, and good ground; the best place is in 9 fathoms water, up towards the upper end of Grave's island, abreast of Green island, which lies about the middle of the harbour: The passage to the inner harbour, on either side of Green island, is very good for ships of a moderate draught of water, through which you will carry 3 fathoms; and above the island is exceeding good anchoring, in 7 fathoms; there is a passage into this place through Little Quirpon, but it is too narrow and intricate for vessels to attempt, unless well acquainted: In and about Quirpon are excellent conveniences for a great number of ships, and good fishing grounds about those parts: All the land about Griguet and Quirpon is mountainous, and appears a barren rock.

Noddy harbour, which lies a little to the westward of Quirpon, runs in S. S. W. between Noddy point and Cape Raven, which form the entrance of the harbour; there is no danger in going in: the passage is on the west side of a small island, that lies about $\frac{1}{4}$ of a mile within the heads, and you anchor as soon as above it, in 5 fathoms water: or with small vessels you may run up into the basin, and anchor in 2 $\frac{1}{2}$ or 3 fathoms; within the island, on the east side of the harbour, is a stage, and very convenient rooms for many fishing ships.

In turning up towards Quirpon and Noddy harbour, you may stand pretty near to the Bull rock and Maria ledge, which are above water; and both of them about $\frac{1}{2}$ a league from the land of Quirpon; the passage between them is also $\frac{1}{2}$ a league wide, and very safe, taking care only to keep near to Gull rock, to avoid the N. W. ledge, which ledge does not appear but in bad weather: in the passage between the N. W. ledge and the main, are many rocks and shallow water.

The course from Bauld cape, which is the northern extremity of Quirpon, to the Great Sacred island, is west 2 leagues; this course will carry you the same distance without Gull rock, as you pass without Bauld cape. Little Sacred island lies E. S. E. from the great island, 1 mile, the passage between them is very safe, and you may sail round them both; they are high and bold: Within them, to the S. W. is Sacred bay, which is pretty large, wherein are a great number of small islands and rocks above water; the land at the bottom of this bay is covered with wood: This place is only resorted to for wood for the use of the fishery at Quirpon, Griguet, and places adjacent, where wood is scarce.

From Great Sacred island to Cape Norman, the course is west 13 miles, and

to Cape Onion is S. W. by W. 2 miles; this cape is the north point of Sacred bay: it is pretty high and steep, near to which is a very remarkable rock, called the Mewstone; to the southward of the Mewstone is a small cove, where a vessel may lie in safety.

From Cape Onion to Burnt cape, the course is W. S. W. distance 5 miles; the shore between them is bold, and of a moderate height; Burnt cape appears white, and rises gradually from the sea to a tolerable height: On the east side of the cape lies the entrance to the bay Ha-ha, which runs in S. S. W. 2 miles; when without Burnt cape, you may anchor in 6 or 7 fathoms, open only to the N. E. winds; or you may run up into the harbour, where you lie land-locked in 8 fathoms: Here is good conveniences for fishing ships, and plenty of wood for their use. Cape Norman from Burnt cape bears N. W. by W. $\frac{3}{4}$ W. 7 miles; Between them is the bay of Pistolet, which runs in S. S. W. and extends several miles every way, with good anchoring in most parts of it, particularly on the west side, a little above the islands, which lie on the same side, in 5 fathoms water; The shore about this bay is tolerably well covered with wood; boats frequently come here for wood from Quirpon.

Cook's harbour is small, and lies within the islands, at the N. W. part of Pistolet bay, and 2 miles to the S. E. of Cape Norman; to sail into it you must take care and give the Norman ledges, which lie E. N. E. 1 mile off the north point, a good birth: In going along shore, the mark to keep without these ledges is, to keep all the land of Burnt cape open without the outermost rocks, which lie on the south side of the entrance to this harbour; if you are going in, as soon as you judge yourself to be to the southward of the Norman ledges, you must steer in for the harbour, leaving the islands on your larboard side; you must keep the south shore close on board, for fear of a ledge of rocks which spits out from a small rocky island on the other side; as soon as you are within that island, you must haul over for the north shore, and anchor in 4 or 5 fathoms water. In this harbour might be made several very convenient fishing rooms, and in the coves between it and Cape Norman, might be built stages for the boats to resort to, and to cure fish.

Cape Norman is the northernmost point of land in Newfoundland, lies in the latitude of $51^{\circ} 38' 23''$ N. is of a moderate and even height, and a barren rock for some miles in the country: From Cape Norman, a W. S. W. course, between 9 and 10 leagues, will carry you a league without Green island; all the shore between them is bold, and of a moderate and equal height for several miles into the country; but a good way inland, is a chain of high mountains, lying parallel with the coast: Between 3 and 4 miles to the westward of the cape is a cove, wherein small vessels and boats may lie very secure from all winds, except N. E. from this place to Green island there is no shelter on the coast. In turning between Cape Norman and Green island in the night, or foggy weather, you may stand in for the land with great safety, in 25 fathoms water, until you are nearly the length of Green island: you will then have that depth of water very near the shore, and likewise on the outside of the island itself.

Green island lies $\frac{1}{4}$ of a mile from the main, is $\frac{2}{3}$ of a mile in length, very low, narrow, and agreeable in colour to the name it bears; from the east end stretches out a ledge of rocks, $\frac{1}{2}$ of a mile to the eastward, whereon the sea breaks in bad weather: The channel between the island and the main, wherein is 4 and 5 fathoms water, is very safe, and where vessels may anchor if they find occasion: The only winds that can make a sea here, are from the W. S. W. and E. N. E. to go in from the westward, keep the point of the island on board for the deepest water, which is 4 fathoms, and going in from the eastward, keep the main on board. The distance from this island to the opposite part of the coast of Labrador, called Castles, or Red Cliffs, doth not exceed 3 leagues and an $\frac{1}{2}$; they bear from each other N. W. and S. E. and is the narrowest part of the Straights of Belle-Isle.

From Green island to Flower ledge, (which lies near $\frac{1}{2}$ a league from the shore) a W. S. W. course, 3 leagues, will carry you $\frac{1}{2}$ a league without the ledge:

from Flower ledge to the bay of St. Barbe, the course is S. S. W. 5 miles, and to point Ferolle, S. W. $\frac{1}{2}$ S. 7 leagues: 5 miles to the westward of Green island is Sandy bay, wherein small vessels might ride in 3 and 4 fathoms water, with southerly and S. W. winds: Between Green island and Sandy bay is Double ledge, which stretches off from the shore near half a mile, whereon is 8 and 9 feet water.

Savage cove, which is 2 miles to the westward of Sandy bay, is small, will admit only small vessels and boats, in the mouth of which is a small, low island; the passage in (which is very narrow) is on the east side of the island, and you must anchor as soon as you are within it, in $2\frac{1}{2}$ and 2 fathoms water: One mile to the westward of this cove is Mistaken cove, which is something larger than Savage cove, but not near so good, being shoal water in every part of it. Nameless cove lies 1 mile farther to the westward, wherein is very shoal water, and several sunken rocks: One mile right off from the east point of this cove lies Flower ledge, part of which just appears at low water; you will have 10 fathoms water close to the off side of it: Between it and Mistaken cove, $\frac{1}{2}$ a mile from the land, lies Grenville ledge, whereon is 6 feet water. Flower cove, (wherein is $2\frac{1}{2}$ fathoms water,) lies just to the southward of Nameless cove; it may be known by some white rocky islands, called Seal islands, lying a little to the westward of it; you must not come too near the outermost of these islands, for fear of some sunken rocks near it. A little within the entrance lies a rock above water, and a channel on each side of it; this cove lies in east, as does Nameless cove, and you must mind not to mistake one for the other: Between Seal islands and the main is a passage for boats, and conveniencies for a seal fishery.

From Seal islands to Anchor point, which is the east point of the bay of St. Barbe, the course is S. W. by S. 1 league; there is no danger but what lies very near the shore, until you are the length of the point, where lies a rocky island, from which stretches out a ledge of rocks S. S. W. $\frac{1}{3}$ of a mile, which you must be mindful of in going in or out of the bay of St. Barbe. A little within Anchor point, is Anchor cove, wherein is 3 fathoms water; it is so very small, that there is no room in it to bring a ship up, unless it be little wind, or calm; the safest way is to anchor without, and warp in; there is room in it for 1 ship, and is a very snug and convenient place for 1 fishing ship, and for a seal fishery.

The bay of St. Barbe lies between Anchor point and St. Barbe's point, which is the S. W. point of the bay; they lay from each other S. by E. and N. by W. half a league; it lies in S. E. about 2 miles from Anchor point: To sail into the bottom of the bay or harbour, you must give Anchor point a good birth, and all the east side of the bay, to avoid the sunken rocks which lay along that shore; the bay will not appear to be of any depth, and you must be well in before you can discover the entrance into the harbour, which is but narrow: you must then steer in S. S. E. keeping in the middle of the channel, and anchor as soon as you are within the two points, in a small cove, on the west side, in 5 fathoms water; the bottom is sand and mud, and you lay land-locked. Near this place branches out two arms or rivers, one called the south and the other the east: in the east river is 3 fathoms water a good way up, but the other is shoal; in these rivers are plenty of salmon, and their banks are stored with various sorts of wood. Between the S. W. point of the bay and west point of the harbour is a cove, wherein are sunken rocks, which stretch off a little without the line of the two points; in the open bay is 7, 8 and 9 fathoms water, but no safe anchorage, because of the N. W. and W. winds, which blow right in, and cause a very great sea.

About 1 league to the S. W. of the bay of St. Barbe lies the bay of St. Genevieve; in and before this bay lie several small islands, 2 only of which are of any considerable extent; the northernmost of these two, which is the largest, called Current Island, is of a moderate height, and when you are to the N. E. of it, the west point will appear bluff, but is not high; if to the westward, it will appear flat, and white like stone beach; near half a mile S. W. by S. from the point is a shoal, upon which is 3 fathoms water; the other island (called the

Gooseberry island) lying to the southward, (and within Current island) hath a cross on the S. W. point of it, from which point stretches out a ledge of rocks, near half a mile to the southward; on the south point of this ledge is a rock that just covers at high water; the best channel into the bay is to the southward of these islands, between the rocks above mentioned, and a small island lying south from it, (which island lies near the south shore) this channel is very narrow, and hath not less than 5 fathoms at low water in it; the course is E. by N. before you come the length of the aforementioned rock, you must be careful not to approach too near the S. W. end of Gooseberry island, nor yet to the main, but keep nearly in the middle between both; if you get out of the channel on either side, you will immediately fall into 3 and 2 fathoms water; as soon as you are within the small island above mentioned, you must haul to the southward, and bring St. Genevieve head, (which is the S. W. point of the bay) between the small island and the main, in order to avoid the middle bank; you may either anchor behind the small island in 5 and 6 fathoms water, or steer over with the said mark into the middle of the bay, and anchor, with the S. W. arm open, in 7 and 8 fathoms water; it is very good anchoring in most parts of the bay, and pretty convenient for wooding and watering; the suggest place is in the S. W. arm, the channel going into which is narrow, and 4 fathoms deep. There is a channel into the bay between Current island and Gooseberry island, wherein is not less than 3 fathoms water, it is but narrow, and lies close to the N. E. end of Gooseberry island; there is also a channel for boats to the eastward of all the islands. The middle bank is a shoal lying in the middle of the bay, and nearly dries at low water; it is pretty large, and hath not less than 4 fathoms water all round it.

Four miles to the westward of the bay of St. Genevieve, is the harbour of Old Ferolle, which is a very good and safe harbour, formed by an island called Ferolle island, lying parallel with the shore. The best passage into this harbour is at the S. W. end of the island, passing to the southward of a small island, in the entrance, which island is very bold too: When you are within this island you must haul up N. E. and anchor behind the S. W. end of Ferolle island, in 8 and 9 fathoms water, where you lie land-locked in good ground: you may also anchor any where along the inside of the said island, and find a good channel up to the N. E. end thereof, where there is an exceeding good place for fishing ships to lie in, like a bason, in 5 and 6 fathoms water, formed by 3 islands, lying at the N. E. end of Ferolle island; there is also a narrow channel into this place from the sea, of 2 fathoms at low water, between the northernmost of these islands and the main; here are convenient places for many fishing ships, and plenty of wood and water; on the outside of these islands are some ledges of rocks a small distance off.

From the S. W. end of Ferolle island to Dog island, is W. S. W. between 4 and 5 miles; Dog island is only divided from the main at high water, is much higher than any land near it, which makes it appear when you are a good way to the eastward to be some distance from the main.

From Dog island to Point Ferolle is W. S. W. 3 miles: between them is the bay of St. Margaret, which is large and spacious, with several arms and islands in the bottom of it, abounding with great plenty of timber of the spruce and fir kind, and watered by small rivers; it affords good anchorage in many parts of it, particularly on the west side which is the best place, as being the clearest of danger, and most convenient for wood and water.

Between St. Margaret's bay and Point Ferolle, is a small bay, called New Ferolle, which lies in S. S. W. about 1 mile, and is quite flat all over, having not quite 3 fathoms in any part of it, and in some places not more than 2, and open to the N. E. winds; there is a stage on each side of the bay, and room for as many more.

Point Ferolle is situated in latitude $51^{\circ} 02' N.$ is 2 miles in length, of a moderate breadth, and joins to the main by a low neck of land, which divides New Ferolle bay from the bay of St. John's, which makes it appear like an island at a

distance; all the north side of the point is very bold too, having 20 fathoms water very near it; but from the S. W. part stretches out a ledge of rocks into the bay of St. John's.

This part of the coast may be easily known by a long table mountain, in the country above the bay of St. John's: the west end of this mountain, from the middle of the point of Ferolle, bears S. by E. and the east end, S. $59^{\circ} 30'$ E.

In turning between Green Island and point Ferolle, you ought not to stand nearer the shore (until you are to the westward of Flower ledge) than half a league, unless well acquainted; you will have for the most part, at that distance off, 20 and 24 fathoms water; after you are above the ledges, (that is to the westward of them) the shore is much bolder, but the soundings not quite so regular; you will have in some places 15 and 16 fathoms water close to the shore, and in others not above that depth 2 miles off: the land between Green island, and St. Barbe, next the sea, is very low, and in some places woody. The land between the bay of St. Barbe and point Ferolle is higher and hilly, the most part covered with wood, and watered with numbers of ponds and small rivers.

The tides in the harbour of Griguet, Quirpon, and Noddy harbour, flows full and change about E. by N. in the bay of Pistolet, and places adjacent, E. by S.

In all which places it flows up and down, or upon a perpendicular; spring tides 5 feet, and neap tides 3 feet.

At Green Island S. E. bay St. Barbe and bay St. Genevieve, S. S. E. Old and New Ferolle, about S. by E.

In all which places it flows up and down, or upon a perpendicular, spring tides 7 feet, and neap tides 4 feet.

Before Quirpon, in settled weather, the tide or current sets to the southward nine hours out of twelve, and stronger than the other stream; in the streights the flood in the offing sets to the westward two hours after it is high water by the shore, but this stream is subject to alteration in blowing weather.

On the coast of Labradore, a little way inland from Labradore harbour, or bay Phillippeaux, is a very remarkable mountain, forming at the top three round hills called Our Ladies Bubbies. This mountain bears from the bay of St. Barbe, N. W. $\frac{1}{4}$ N. from the bay of St. Genevieve N. 30° W. and from Dog island N. $14^{\circ} 45'$ W.

Belle-isle, which lies at the entrance of the streights to which it gives name, is about 7 leagues in circuit, and pretty high; on the N. W. side of it is a very small harbour, fit for small craft, called Lark harbour, within a little island that lies close to the shore; and at the east point of the island is a small cove, that will only admit fishing shallops; 2 miles N. by E. from this point lies a ledge of rocks, part of which appears above water, and on which the sea always breaks very high; you will have 20 fathoms close to this ledge, and 55 fathoms between it and the island; all about this island is irregular soundings, but you will not find less than 20 fathoms home to the island, excepting on a small bank lying N. W. 4 miles from the N. E. end, whereon is only 5 fathoms.

Red bay, on the coast of Labradore, about 8 leagues to the westward of Chateaux, is an exceeding good harbour, with excellent conveniences for the fishery.

York, or Chateaux bay, on the coast of Labradore, lies W. N. W. $\frac{1}{4}$ W. $5\frac{1}{2}$ leagues from the west end of Belle-isle, and N. W. $\frac{1}{4}$ N. $8\frac{1}{4}$ leagues from the island of Quirpon. In crossing the stright from Quirpon to Chateaux bay, it is advisable to fall in with the coast a little to the westward of the bay, unless the wind be eastwardly, and clear weather, as there is not the least danger to the westward, but to the eastward are several low rocky islands. This bay may be known by two very remarkable rocky hills on Castle and Henley islands, which islands lay in the mouth of the bay; those hills are flat at top, and the steep cliffs round them have something the resemblance of castle walls; but as these hills are not distinguishable at a distance, because of the highland on the main within them, the best marks for knowing the bay, when in the offing, is as follows: all the land to the westward of it is high, of a uniform even figure, terminating

at the west side of the bay with a conspicuous nob or hillock; about Chateaux bay, and to the eastward of it, is hilly, broken lands, with many islands along shore, but there is no islands to the westward of it: to sail into the bay, you leave both the islands on which stand 2 castle hills, on the starboard side; and for large ships to keep clear of all danger, they must keep point Grenville (which point is known by a beacon upon it) on with the west point of Henley island, (which point is a smooth black rock, and may be known by a small black rock just above water, about a cable's length without it) until you are abreast of the east point of Whale island; then to avoid the middle rock, on which is only 9 feet, and which lies nearly in the middle between the east point of Whale island and the said black point of Henley island, you must haul over either close to the little black rock, lying off the said point of Henley island, or else borrow on the Whale island, but not too near it, it being flat a little way off; when you are so far in as to open the narrow passage into Temple bay, in order to sail up into Pitt's harbour, haul to the westward, until you bring the outer point of Castle island a little open with Whale island; that mark will lead you up into Pitt's harbour, which is large and spacious, with a good bottom in every part of it, and covered from all winds; you lie in 10 or 14 fathoms; here are excellent conveniencies for the fishery, and plenty of timber at hand; formerly ships from France carried on a most valuable fishery at this place for whale, cod and seals. There is a good, though narrow passage into the northward of Henley island, through which you carry $3\frac{1}{2}$ fathoms water; 1 mile to the eastward of Henley islands lies Seal islands, from them to Duck island, is $3\frac{1}{2}$ miles; between Seal islands and Duck island is Bad bay, which is open to the easterly winds, and full of rocks, some above and some under water.

Crossing the streights from Quirpon to Chateaux, you will meet with irregular soundings, from 20 to 30 fathoms on the Newfoundland side, and in places near the shore you will have 30 to 40 fathoms; in the middle of the streights in the stream of Belle-isle, is from 20 to 30 fathoms, and between that and Chateaux bay from 45 to 80 fathoms; within a mile of the coast of Labradore, to the westward of Chateaux bay, you will have 25, 30, and 35 fathoms; further up the streights, as far as Cape Norman and Green island, you will have 40 and 45 fathoms in the middle, less towards Newfoundland, and more towards the coast of Labradore.

About 7 miles to the eastward of Seal islands, is St. Peter's islands, a parcel of small barren rocks; within them is St. Peter's bay, which is a good bay, open only to the S. E. winds.

Cape Charles makes with a high steep towards the sea, and sloping inland, so that when you are to the westward of Chateaux, Cape Charles will make like an island.

From St. Peter's islands to Cape Charles island, the course is N. E. $\frac{1}{2}$ E. distance near 4 leagues; between them lies Niger sound, which is an inlet 2 leagues deep, before which lies several islands. You may pass to the northward or southward of any of those islands into the sound; the course in, is N. W. the best anchorage is on the north side, in 9 fathoms water.

From Cape Charles to the Battle islands, (which are the outermost of the Caribou islands) the course is N. by E. $\frac{1}{4}$ E. 4 miles, and from the northernmost of the Battle islands to point Lewis, is N. N. W. $\frac{1}{4}$ W. 5 miles; between the Battle islands and the great Caribou island is a good harbour for small vessels; the south entrance is very narrow, and has only 3 fathoms water; this entrance is not easily distinguished, by reason of a small island before it; the north entrance is much wider, passing to the westward of the three small northernmost of the Battle islands; you may anchor from 5 to 10 fathoms water. This place is much resorted to by the savages, and is by them named Ca-tuc-to; and Cape Charles they call Ikkegaucheateuc.

Between the Caribou islands and Cape Lewis, lies St. Lewis' bay, in which are many islands and inlets which have not yet been examined.

From the north part of Cape Lewis, at a quarter of a mile from the shore, are

two flat rocks, and also several sunken rocks, all which are within that distance from the shore; round this point is the entrance of a small cove, running in S. S. W. half a mile, named Deep-water creek, but very narrow, and has from 20 to 40 fathoms water in it.

From the north part of point Lewis to the south head of Petty-harbour bay, the course is north $1\frac{1}{2}$ mile; it is a high bold shore; from the south head to the north head of this bay, the course is N. $\frac{1}{4}$ E. $1\frac{1}{2}$ mile; this bay runs up W. N. W. 1 mile; in it is 20 to 40 fathoms water. At the bottom of it is Petty-harbour; the entrance is to the northward of a low point of land which shuts the harbour in from the sea, so as not to be seen till very near it; the entrance is very narrow, it is not above 50 fathoms broad, there is 5 fathoms in the middle and 3 fathoms close to the sides; the narrow part is but short, and after you are within the entrance the harbour becomes wider, running up W. by N. $1\frac{1}{2}$ miles, and $\frac{2}{3}$ of a mile broad, wherein ships may anchor in any part, from 12 to 7 fathoms, and lie entirely land-locked. From the north head of Petty-harbour bay to point Spear, the course is N. $\frac{1}{2}$ E. $2\frac{1}{4}$ miles; between them is Barren bay and Spear harbour; Barren bay is to the northward of the north head of Petty-harbour bay, in it is no shelter.

Spear harbour is to the southward of Spear point; this is a very good harbour; coming from the northward, about point Spear, you will open two islands in the bottom of a small bay; the best passage in, is between the 2 islands, and to keep the north island close on board, there is 4 fathoms along side of it; after you are half a cable's length within the islands, steer for the middle of the harbour, and anchor in 7 or 8 fathoms, where is good room to moor; small vessels may go on either side of the islands; there is 2 fathoms at low water; but observe in coming from the southward you will only distinguish one island, for the northernmost island will be shut in under the land so as not to be discerned till you get within the heads.

From point Spear to the entrance of the Three harbours the course is W. N. W.; about 3 miles between them are several small high islands lying within half a mile of the shore, called Spear islands; they are all bold too, and there is 20 fathoms within them; N. N. E. $\frac{1}{4}$ E. from the S. E. head of the entrance of the Three harbours, lies 2 small islands, close together, called Double island, about as high as they are broad, and about half a cable's length to the eastward of those islands are 2 sunken rocks, on which the sea breaks in bad weather. Nearly in the middle of the entrance of the Three harbours lies 2 islands close together, which mostly appear as one island by being so close together, they are steep too; ships may pass on either side of them in 12 and 14 fathoms, and anchor within them, in Queen road, in 16 fathoms; by the S. E. end of the islands is the widest passage, and room for ships to work in or out.

The first and southernmost harbour within Queen road, is Sophia harbour; it runs up S. by E. $1\frac{1}{2}$ mile, and has from 15 to 10 fathoms water for that distance; then it tends away round a low point to the eastward, and becomes a mile broad but thence is very shoal water, and only fit for small vessels.

Port Charlotte is the middle harbour, and a very good one for any ships, there is a low flat island on the starboard side of the entrance, and from this island runs a reef of rocks a third of the channel over to the south side; to avoid which keep the south side nearest on board, for it is steep too, having 9 fathoms close to the shore, therefore keep the south side nearest until you are a quarter of a mile within the entrance, then you may anchor in any part of the harbour between 12 and 17 fathoms, only giving the starboard side a birth of half a cable's length, to avoid a small reef that lays along that side.

Mecklinburgh harbour is the northernmost of the three, and lies up N. W. $\frac{1}{2}$ W. and W. N. W. 2 miles; in the lower part of this harbour is 20 fathoms, but in the upper part is no more than 12 fathoms room for ships to moor; to sail up to the head, keep the larboard side nearest, to avoid the ledge of rocks that lay along the starboard side, about 30 fathoms from the shore. These rocks lay

within the narrowest part of the harbour, and above the low point on the starboard side; the best anchorage is at the head of the harbour.

From the islands at the entrance of the Three harbours to Cape St. Francis, the course is N. $\frac{1}{2}$ E. about 5 miles; between them is the entrance into St. Francis or Alexis river, between 2 low points about a mile across; this river runs up about 10 leagues, where the water is fresh, and a very strong tide; in it are many bays, harbours and islands; the first part of this river runs up W. N. W. 3 miles and a half. There are 4 islands within the entrance, 2 of which are on the larboard side, and further up, 2 on the starboard side; the outermost island on the larboard side, which is about a mile within the entrance, is a high round island in the shape of a sugar-loaf, with the top part cut off, and is a very good mark to sail in by; there is a ledge of rocks about half a cable's length from the S. E. point of the entrance; and E. S. E. half a mile from the said point, there is a flat rock, always above water, with a ledge of sunken rocks half a cable's length to the N. E. from it, and half a mile without this flat rock, on the same line with the point there is another flat island with a ledge of sunken rocks a cable's length to the N. E. from it. In sailing into this river, to avoid these ledges, keep to the northward of the flat islands, till you bring the Sugar-loaf island, which is within the river, a third of the channel over from the S. E. point; that mark will keep you clear of the ledges, and to the northward of them you may either sail or work in, taking care not to shut the Sugar-loaf island in with the N. W. point and bring it no nearer the S. E. point than a third of the breadth of the channel; after being within the points, there is no danger but what is to be seen; there is anchorage within the two islands, on the larboard side, in 12 and 14 fathoms, but you will lay open to the N. E. the best place to anchor within the first part of the river, is in Ship's harbour, which is on the larboard side, about $2\frac{1}{2}$ miles from the entrance, where the course into it is S. S. W. $1\frac{1}{2}$ miles; at the entrance it is $\frac{1}{2}$ of a mile broad, at the head it is broader; there is 12 and 15 fathoms water, and good anchorage in security against all winds; at $3\frac{1}{2}$ miles from the entrance the course of the river is W. by S. 7 miles; in the middle of it are several great and small islands: Sailing up along the south side of the islands there is no danger, and not less than 40 or 50 fathoms water, but on the starboard, or north side of the islands there is much less water, and anchorage all the way up in 12 and 17 fathoms. The course up the third part of the river is W. S. W. 4 miles; here is only 2 islands, on the larboard or south side of which is very good anchoring, in 12 fathoms; on the north side is 30 fathoms water, the land about here is very high and well covered with wood; here the water is fresh, and 7 miles further up is a bar, on which there is not above 3 feet at low water, the river above that bar runs W. and W. N. W. 6 miles, but the head of it is not yet known; by the rapid stream probably it comes from great lakes afar off.

One mile to the northward of St Francis river, there is a harbour, called Merchantmen's harbour; between the river and this harbour there are 2 or 3 sunken rocks, lying a cable's length off from the second point from the river; there is no danger in sailing into this harbour, it runs in first W. N. W. and then W. about a mile, is 2 cables length wide at the entrance, and 3 at the head of it, where ships may anchor in 12 fathoms water.

To the northward of this harbour, round a small point, there is an inlet which runs up W. N. W. 5 miles, where it turns to the southward into St. Francis river; it is about $\frac{2}{3}$ of a mile broad at the entrance, and continues the same breadth about 2 miles up, and then becomes very broad, with an island in the middle, shaped not unlike a leg; there is no danger in this inlet but what appears above water; along the south side of Leg island there is anchorage in 12 and 13 fathoms. At about $3\frac{1}{2}$ miles within the entrance, the lower part of Leg island forms 3 very good harbours, with 7 and 12 fathoms water in them; on the north side of Leg island there is a large space, about a mile broad, and 2 miles long; in it is from 60 to 80 fathoms water, from which to the N. W. is a passage into Gilbert's river, which runs from thence W. N. W. 6 miles, and is about $\frac{1}{2}$ a mile

broad, and from 50 to 60 fathoms water in it; then Gilbert's river divides into 2 branches, 1 to the W. N. W. 7 or 8 miles, the other S. S. W. 6 miles, the head of which is within a mile of St. Francis river; both these branches are full of small islands, rocks and shoals on each side, but in the middle is good anchorage all the way up, from 10 to 40 fathoms; this river has also a passage out to the sea to the northward of Cape St. Francis, between Hare island and Fishing islands; from St. Francis island to the north end of Hare island, is W. N. W. $2\frac{1}{2}$ miles; within Hare island there is a small harbour; to sail into it you must pass round the north end of Hare island; there is from 12 to 9 fathoms water within this harbour, and no shoals in it; but the harbour hereabouts is Fishing ship harbour, which is formed by 3 islands, lying along shore a mile to the northward of Hare island; the best passage into it is between the 2 westernmost islands, which entrance bears from Hare island N. W. There is no danger in this passage: ships may sail right in N. W. up to the head of the harbour, and anchor in 12 fathoms; there is good room for any ships to moor; there are 2 other passages to this harbour, one to the westward from the entrance of Gilbert's river, the other to the eastward, passing to the northward of all the Fishing islands, and hath 7 fathoms through, but this is a very narrow passage, and difficult for those not acquainted. From the northernmost Fishing island to Cape St. Michael, the course is N. by W. $\frac{1}{2}$ W. distance 6 miles: This part of the coast is bold too, and very high land.

Two miles to the southward of Cape St. Michael, lies Occasional harbour, which may be easily known by 2 large rocks called Twin rock, which lie about two thirds of a mile without the entrance; they lie close together; ships may pass on either side of them; the entrance to this harbour is between 2 high lands, and runs up S. W. about 2 miles, then W. N. W. There is no danger in this harbour, both sides being steep too; and about 2 miles up there is good anchorage in 7 and 10 fathoms; the winds between the high land at the entrance always sets right into the harbour, or right out.

From Cape St. Michael's to Cape Bluff, the course is N. by W. 4 leagues; these 2 capes form the great bay of St. Michael, which contains a great number of islands, inlets, rivers, &c. which are not yet known. Cape Bluff is a high bluff land, and may be seen 15 or 16 leagues; the best place yet known for large ships to anchor within St. Michael's bay, is on the south side, that is first keep Cape St. Michael shore on board, then keep along the south side of the first island you meet with, which is called Long island, till you come near as far as the west end of it, and there anchor from 12 to 20 fathoms, you will there lie land locked, and may work out again to sea on either side of Long island. At the entrance of this bay is a large square island, within which are many small islands, which form several harbours.

The land from Cape Bluff to the northward lies N. N. E. 5 or 6 leagues, and makes in several high points.



Description of part of the Coast of Labrador, from Grand Point of Great Mecatina to Shecatica.

[N. B. All Bearings and Courses hereafter mentioned, are the true Bearings and Courses, and not by Compass.]

Courses and distances from island to island along the coast, between Grand Point and Shecatica, which courses carry you without all other islands and rocks.

FROM Grand Point to outer rocks off the Islands of Entrance, the course is S. E. by E. $\frac{1}{2}$ E. $2\frac{1}{2}$ miles.

From the outer rocks off the Islands of Entrance, to the Murr rocks, the course is E. by S. $\frac{1}{2}$ E. $3\frac{1}{2}$ miles.

From Murr rocks to Flat island, the course is N. E. $\frac{1}{2}$ E. distance 5 miles.

- From Flat island to Treble-hill island, the course is N. by E. $5\frac{1}{2}$ miles.
 From Treble hill island to Fox islands, (which are a cluster of islands, lying S. S. E. $\frac{1}{2}$ E. from Eagle harbour,) the course is N. $\frac{1}{2}$ E. 3 leagues.
 From Fox islands to the rocks off the entrance of the port of St. Augustine, called St. Augustine's chain, the course is N. E. by E. 5 leagues.
 From the rocks called St. Augustine's chain to Shag island, the course is N. E. $\frac{1}{2}$ E. $2\frac{1}{2}$ leagues.
 From St. Augustine's chain to the rocks without Shag island, called Shag rocks, the course is N. E. by E. distance 3 leagues.
 From the Shag rocks to the rocks off the east end of the island of Shecatica, the course is N. E. $\frac{1}{2}$ E. 3 leagues.

Courses and distances along shore, passing within the Great Island of Mecatina.

- From the outer rocks off the Islands of Entrance to the Bay de Portage, the course is N. W. by N. $\frac{1}{4}$ W. 4 miles.
 From the outer rocks off the Islands of Entrance to outer point of Mecatina island, the course is N. by W. $\frac{1}{2}$ W. 4 miles.
 From the outer point of Mecatina island to Gull island, the course is N. E. by E. 1 mile.
 From Gull island to Green island, at the entrance of Red bay, the course is N. N. E. $\frac{1}{2}$ E. 1 league. This course will carry you clear of the Shag rocks, as far as you pass without Gull island.
 From Gull island to La Boule rock, off the N. W. end of Great Mecatina island, the course is N. E. by N. $\frac{1}{2}$ E. 1 mile.
 From La Boule rock to Green island, the course is W. by S. $\frac{1}{4}$ S. 1 league.
 From La Boule rock to Duck island, the course is N. N. W. $\frac{1}{4}$ W. 1 league.
 From Duck island to Round island, at the entrance of Ha Ha bay, the course is N. by E. $\frac{1}{2}$ E. $1\frac{1}{2}$ mile.
 From Round island into the harbour of Little fish, the course is S. W. by W. $\frac{1}{2}$ W. $\frac{1}{2}$ league.
 From Round island into the bay of Ha Ha, the course is N. N. E. $\frac{1}{2}$ E. $\frac{1}{2}$ league, leaving all islands on the starboard side.
 From La Boule rock to Loon islands, the course is N. $\frac{1}{2}$ E. 1 league.
 From La Boule rock to Goose island, the course is N. E. $5\frac{1}{2}$ miles.
 From Goose islands to Fox islands, the course is N. E. by N. 2 leagues.

The Grand Point of Great Mecatina lies in the latitude of $50^{\circ} 41' N.$ and is the extreme point of a promontory which stretches off from the main. The extreme of this point is low: from thence it rises gradually to a moderate height, and may be easily known from several adjacent islands and rocks, which lie off S. E. by E. $\frac{1}{2}$ E. from it; the nearest of which is a small low rock, and is within one third of a cable's length from the point. Two of these islands are much larger and higher than the others; the outermost are small low rocky islands, and lie $2\frac{1}{2}$ miles from the Grand point.

From Grand point, E. by S. $5\frac{1}{2}$ miles, lie the two Murr islands, which are the southernmost islands on this part of the coast. The northernmost Murr island, lies from the other N. N. W. $\frac{1}{4}$ W. about a quarter of a mile. These islands are very remarkable, being two flat barren rocks, of a moderate height, and steep cliffs all round. About half a mile to the S. E. of the southernmost Murr island, lie the two Murr rocks, which are above water. And E. N. E. $\frac{1}{2}$ E. $1\frac{1}{4}$ mile from the southernmost Murr island, lies a ledge of rocks under water, on which the sea generally breaks.

From Murr islands N. W. by W. 2 leagues, lies the Bay de Portage. The land over this bay makes in a valley, each side being high; at the entrance lies an island of a moderate height, which forms the harbour. You may sail into this harbour on either side of the island, but the eastern passage is only fit for small vessels, there being only 2 fathoms water in the entrance at low water. The western passage is sufficiently large and safe for any vessel to turn in, there being in it from 6 to 8 fathoms at low water. Large vessels bound for this harbour must be careful to avoid 2 sunken rocks, on which there is $2\frac{1}{2}$ fathoms water at low water. The northernmost of these rocks lies from Mutton island, S. by E. $1\frac{1}{2}$ mile, and the southernmost lies from the Seal rocks, N. by E. $\frac{1}{4}$ E. half a mile. Vessels may borrow within one cable's length of Mutton island, or Seal rocks.

The harbour of Great Mecatina lies N. W. $\frac{1}{4}$ W. 2 leagues from Murr islands, and N. by E. $2\frac{1}{2}$ miles from Grand point. This harbour is formed by Mecatina

island and the main, and is a safe, but small harbour, yet will admit ships of burthen, there being not less than 3 fathoms water in either passage at low water; but they must moor head and stern, not being room to moor otherwise. To sail into this harbour through the western passage, there is not the least danger. To sail in through the eastern passage, observe the following directions: From the eastern point of the island, run N. N. W. for the main, and keep the main close on board, till you bring the western point of the island on with the point of Dead cove (this is a small cove on the main, which lies open to the eastward; the land which forms it is very low, with some brush wood on it,) and sail in that direction till you are above a stony point, which is the north point of the said cove, or till you bring the north point of Gull island (which is a small island lying N. E. by E. 1 mile from Mecatina island) on with the N. E. point of Mecatina island, you will then be within a spit of rocks, which stretches off from Mecatina island, and must then haul directly over for Mecatina island, in order to avoid a ledge which stretches off from the south point of Dead cove, and may anchor, when you bring the western passage open in 6 or 7 fathoms water in great safety. Vessels coming from the eastward, and bound for the harbour of Mecatina, and would pass to the northward of Gull island, must be careful either to keep Gull island or the main close on board, in order to avoid a sunken rock that lies near half way between Gull island and the main, on one part of which there is not above 3 feet water at low water.

The highest part of the land between Grant Point and Ha ha bay, is directly over the harbour of Mecatina.

The great island of Mecatina lies three miles from the main, and is in length from north to south, $3\frac{1}{2}$ miles, and in breadth, from east to west, 3 miles: is high land, but much higher in the middle than either end. The N. E. point of this island makes in a remarkable bluff head, which is in latitude $50^{\circ} 46'$ N. Round this head, to the northward, and within a cluster of small islands, (on either side of which is a good passage,) lies a cove, which runs in S. by W. $\frac{1}{2}$ W. about $1\frac{1}{2}$ miles from the said islands; vessels may anchor in this cove, in great safety, from 14 to 20 fathoms water, good ground. Here is wood and water to be had.

The great island of Mecatina being the most remarkable land about this part of the coast from whence vessels may best shape a course for other places, I will here give the bearings and distances of the most remarkable points, head lands, rocks and harbours from it.

Courses and distances from Great Island of Mecatina to other places.

From the Round head of the Great island of Mecatina to Mecatina island, the course is W. by S. $\frac{1}{2}$ W. $5\frac{1}{2}$ miles.

From Round head to the outer rocks off the Islands of Entrance, the course is S. S. W. $\frac{1}{2}$ W. 5 miles.

From Round head to Murr islands, the course is S. $\frac{1}{2}$ E. 5 miles, nearly.

From the Bluff head of the Great island of Mecatina to Flat island, the course is S. E. by S. 5 miles.

From Bluff head to Loon islands, the course is N. by W. $\frac{1}{2}$ W. 4 miles.

From Bluff head to Round Island, at the entrance of Ha ha bay, the course is N. W. by N. $\frac{1}{2}$ W. $6\frac{1}{2}$ miles. This course leaves Loon islands on the starboard side, and Duck island on the larboard side.

From Bluff head to Treble hill island, the course is E. N. E. $\frac{1}{2}$ E. $5\frac{1}{2}$ miles.

From Bluff head to Double hill island, the course is N. $5\frac{1}{2}$ miles.

From Bluff head to Goose islands, the course is N. by E. $\frac{1}{2}$ E. $5\frac{1}{2}$ miles.

From Bluff head to the Fox islands, the course is N. N. E. $\frac{1}{2}$ E. 11 miles.

From Bluff head to St. Augustine's chain, the course is N. E. 25 miles.

From Bluff head to Shag island, the course is N. E. 104 leagues.

From Bluff head to Shecatca, the course is N. E. $\frac{1}{2}$ E. 13 two-thirds leagues.

The harbour of Little Fish lies in east and west, is but small, and is formed by an island covered with wood. You may sail into this harbour on either side of the island, but to the northward is the best passage. In the bay to the southward of the island, lies a ledge of rocks part of which is always to be seen. E. by S. one third of a mile from the east point of Wood island, lies a rock, on which there is only 2 fathoms water at low water. You may anchor in this

harbour at the back of the island in 7 or 8 fathoms water, good bottom, and have room sufficient to moor. Here is both wood and water to be had. Off the northern point of the entrance into this harbour, called Seal point, lies 2 small islands, and a sandy cove, where there is a seal fishery carried on.

Between the harbour of Little Fish and the bay of Ha ha, is a remarkable high round hill, which makes in a peak, and may serve as a good mark for knowing either of those places by.

The bay of Ha ha lies from La Boule point, N. N. W. $\frac{1}{2}$ W. 5 $\frac{1}{2}$ miles, in the mouth of which there are several islands, which form several passages, but the best is between Seal point and Round island, leaving all the islands on the starboard side; this is a wide and safe passage, there being no danger but what appears above water. This bay runs up north 7 miles, at the head of which on the starboard side are several islands; within these islands, to the eastward, are many good anchoring places, from 9 to 20 fathoms water. Vessels may occasionally anchor all along the eastern shore within this bay, in 12 and 14 fathoms water, mud ground; on the western side it is deep water. N. $\frac{1}{2}$ W. 2 miles from the entrance of the west side, is a high bluff head; round this head W. by N. $\frac{1}{4}$ W. half a mile, is a small but safe harbour for small vessels, in which you have 12 fathoms, good ground. This harbour is formed by an island, on either side of which there is a safe but narrow passage.

After you leave the bay of Ha ha, proceeding to the eastward, you lose sight of the main land, (till you come to the bay of Shecatiga,) which is hid from you by the number of great and small islands of different height, so numerous, and so near each other, that they are scarce to be distinguished as islands till you get in amongst them.

Amongst these islands are a great many good roads and harbours; some of the best and the easiest of access are as follow.

Eagle harbour lies near the west end of Long island, and is formed by a cluster of islands, on which a French ship of war of that name was lost. This harbour is capable of holding a number of shipping with great security, having in it from 10 to 20 fathoms, good bottom, but it is not easily to be distinguished by strangers; the best way to find it, is to shape a course as before directed, from the great island of Mecatina, to Fox islands, which lie from the westernmost entrance of the harbour S. E. by S. $\frac{1}{2}$ E. 1 $\frac{1}{2}$ mile. It is also to be known by a large deep bay, which forms to the eastward of it, without any islands in it, but to the westward is a vast number. If you intend for the east passage into this harbour, you must first steer from Fox islands, N. $\frac{1}{4}$ E. 2 $\frac{1}{2}$ miles into the bay, when you will observe to the N. W. of you, a remarkable high island, round which to the northward, is a safe passage of 3 fathoms into the harbour, where you may anchor in great safety from all winds. In the western passage into this harbour is 2 $\frac{1}{2}$ fathoms water, fit only for small vessels, being a narrow passage between many islands. This part of the coast is very dangerous for a vessel to fall in with, in thick weather, by reason of the infinite number of small and low islands, and some rocks under water.

From the Bluff head of Great Mecatina island to St. Augustine's chain, the course is N. E. 8 $\frac{1}{2}$ leagues. The west island of St. Augustine, is of a moderate height, the west part being highest and quite low in the middle, but is not as easily to be distinguished at a distance, by reason of the islands within being much higher. Half a mile to the eastward of this island is the East island, something larger, but not quite so high and is even at top. Between these two islands, after passing between the Chain and Square islands, is a safe passage for small vessels into this port; they may anchor between the West island and Round island or they may run to the northward past Round island, and anchor in 6 or 7 fathoms water, where they will have good room to moor. S. by W. $\frac{1}{4}$ W. about half a league from the west of St. Augustine's island, runs a chain of small islands, called St. Augustine's chain, the outermost of which is a remarkable round smooth rock. A $\frac{1}{4}$ of a mile to the westward of this island lie rocks under water, which always break, and shew above water at $\frac{1}{2}$ ebb. About half a mile to the S. W. of

these rocks is a high black rock above water; between these two is the best passage for large vessels into the port of St. Augustine. You must steer from this black rock, for a remarkable low point which will bear N. $\frac{1}{4}$ W. till you open the port of St. Augustine, and then haul in and anchor as before; or you may steer up the passage between this point and Round island, and anchor as before directed.

The entrance of the river St. Augustine, lies from the port of St. Augustine $4\frac{1}{2}$ leagues to the N. W. with several large and small islands between them. The river is not navigable for any thing but boats, by reason of a bar across the entrance, which dries at low water. This river, at two miles up, branches into two arms, both tending to the N. W. 14 or 16 leagues. There is plenty of wood to be had in this river.

From St. Augustine's chain to Shag island, the course is N. E. $\frac{1}{2}$ E. $2\frac{1}{2}$ leagues. This island is very remarkable; being small, high, and in the middle is a round peaked hill. From this island to the eastward are a number of small rocks above water, the outermost lies E. by S. $\frac{1}{4}$ E. $1\frac{1}{2}$ mile from Shag island. N. W. by W. $2\frac{1}{2}$ miles from Shag island, lies the bay and harbour of Sandy island, which is a very safe harbour. To sail into this harbour, you must pass to the eastward of Murr rocks, and keep the starboard point of the bay on board you will then see a small rock above water to the N. W. which lies off the entrance of the harbour; you may pass on either side of this rock, and then steer in N. $\frac{1}{2}$ W. for the harbour, there being no danger but what appears. In this harbour there is good room to moor in 5 and 6 fathoms water, and a good bottom: there is not any wood to be had, but plenty of water.

Cumberland harbour lies N. $\frac{1}{2}$ W. 1 league from the outer Shag rocks, and is to be known by a remarkable high hill on the main, which is the highest hereabouts, and makes at the top like a castle, being steep cliffs appearing like walls. This hill lies N. W. by N. about $3\frac{1}{2}$ leagues from the entrance of the harbour. The outer islands, named duke and Cumberland islands, which form the harbour, are of a moderate height, the easternmost making in two round hills. To sail into this harbour there is no danger but what appears above water, except a small rock, which lies S. S. E. half a mile from the west head, the entrance is a quarter of a mile wide, and half a mile long: from the east head, steer for the inner point on the west side; after you are the length of that point, you may haul to the eastward and anchor where you please, from 20 to 7 fathoms water in good ground, and an excellent roomy harbour, fit for any ships, and is the best harbour and the easiest of access on this coast. Here is good water, but for wood you must go up Shecatica bay.

The bay of Shecatica lies $2\frac{1}{2}$ miles to the N. E. from the entrance of Cumberland harbour, and runs many miles up the country to the northward, in several branches and narrow crooked passages, with many islands, which form several good harbours; the passages are too narrow for vessels to attempt without being very well acquainted.

To the eastward of the bay of Shecatica, and N. N. E. $\frac{1}{4}$ E. $2\frac{1}{2}$ leagues from the outer Shag rocks, lies the island of Mistanogue; within it, to the northward, and before the mouth of the bay of the same name, is very good anchorage, from 20 to 15 fathoms water, good ground, and sufficient room to moor: To go into the road, you may pass round the west end of the island, which is bold too, or round the east end between it and the island of Shecatica, but this last passage is only for small vessels. There is good anchorage quite to the head of the bay of Mistanogue, which is long and narrow. This island and the main land about it is high and barren, but there is both wood and water to be had in the bay Mistanogue. A little to the eastward lies the island of Shecatica, between it and the main is a good passage for small vessels where there is a considerable seal fishery carried on. Three miles to the N. E. of the island of Shecatica lies the bay of Petit Pene, which runs up north 5 miles but is not fit for vessels to anchor in, being deep water, narrow, bad ground, and entirely exposed to the southerly winds.

N. B. All the islands along the coast are quite barren, the outer ones being small and low rocky islands, the inner ones are large and high, covered mostly with green moss.

No wood to be got but at such places as are mentioned in the foregoing directions.

The course and the flowing of the tides along this coast are so irregular, no certain account can be given thereof; they depend much upon the winds, but in settled moderate weather I have found it high water at Shecatica, on the full and change, at 11 o'clock, and at Mecatina, at half past 2 o'clock, and rises and falls upon a perpendicular about 7 feet.

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Directions for navigating on that part of the coast of Labrador from Shecatica to Chateaux, in the Streights of Belle-Isle.

[**N. B.** All Bearings and Courses hereafter mentioned, are the true Bearings and Courses, and not by Compass; the variation was 26° W. in the year 1769.]

Bowl island lies E. by N. 2 leagues from the island of Shecatica, and 1 mile from the main; is a remarkable round island of a moderate height.

About this island, and between it and Shecatica, are a number of small islands and sunken rocks, which renders this part of the coast dangerous, unless there is a fresh wind, and then the sea breaks on the rocks.

From Bowl island to the entrance of bay D'omar, the course is N. E. by N. $\frac{1}{2}$ E. distance 2 miles. This bay runs up N. by E. nearly three miles, with high land on both sides; is about 2 cables length off shore. Off the coves it is wider. The western shore is the highest. Without the east point lie two small islands about 1 cable's length off shore. In this bay there is very good anchorage, the best being at about 2 miles within the entrance, opposite a woody cove on the west side, where you may lie secure from all winds in 14 or 16 fathoms water, and be very handy for wooding and watering. About 1 mile within the entrance on the west side, lies a remarkable green cove, off which it is shoal a small distance from the shore; one mile to the eastward of Bay D'omar lies little Bay, in which is tolerable good anchorage for small vessels. E. N. E. $\frac{1}{2}$ E. distant 3 leagues from Bowl island, begins a chain of islands and rocks, lying E. N. E. 3 leagues, and from 3 to 5 miles distant from the main, the easternmost of which are called outer, or Esquimaux islands; the middle part are called Old Fort islands; and the westernmost are called Dog islands. Within these islands on the main are several good bays and harbours, but are too difficult to attempt, unless very well acquainted, the passages being very narrow, and a number of sunken rocks.

N. $\frac{1}{2}$ W. 4 miles from the west side of the outer Esquimaux islands, is very good anchorage for small vessels, between two high islands. Within these islands lies the river Esquimaux.

From outer Esquimaux island to point Belles Amour, the course is N. 59° E. distant 13 miles. This point is low and green, but about 1 mile inland is high. Round this point to the eastward is a cove, in which is anchorage for small vessels in 7 fathoms water, but open to easterly winds.

From Point Belles Amour to the entrance of the harbour of Bradore, the course is E. by N. 2 leagues nearly. This harbour is to be known by the land between it and point Belles Amour, being high table land, the land on the east side of it being low near the sea, and tending to the southward, or by our Ladies Babbies, which are three remarkable round hills, seen all along this coast, lying N. by E. $\frac{1}{2}$ E. 2 leagues from the island of Ledges, which forms this harbour. This island is of a moderate height, having a great number of small islands and rocks about it. On the east side of this island is a cove, called Blubber cove, wherein is anchorage in 2 $\frac{1}{2}$ fathoms water, for small vessels. There are two passages into the harbour of Bradore; but that to the northward of the island of

Ledges is by no means safe, there being a number of sunken rocks in that passage. The eastern passage is safe, taking care to avoid a small rock, which lies S. 32° W. $\frac{1}{4}$ of a mile from the low point on the main where the houses stand. On this rock the sea mostly breaks, and shews above water at $\frac{1}{4}$ ebb. On the east side, within the rock, is a small cove, called Shallop cove. From the point above the cove, called shallop cove head, stretches off a shoal, one cable's length from the shore, and continues near the same distance, quite to the head of the harbour.

From the island of Ledges to Green island, the course is S. 30° W. distant 5 miles. On the east side of this island is a cove, wherein a fishery is carried on. Between this island and the main, and between it and the island Bois, is a clear, safe passage.

The island of Bois lies 2 miles to the eastward of Green island, and is of a moderate height, and a safe passage all round it. To the northward of this island, lies Blanche Sablon, in which is anchorage but the ground is not very good, being a loose sand.

From the south point of the Isle aux Baus, to the west point of Forteaux bay, the course is N. 70° E. distant $8\frac{1}{2}$ miles. This bay is 3 miles broad, and nearly the same depth, at the head of which, on the west side, is good anchorage, from 10 to 16 fathoms water, but is open to the southward. Off the east point of this bay is a rock, which makes in the form of a shallop under sail, either coming from the eastward or the westward. On the west side of the bay is a fall of water, which may be seen in coming from the eastward.

Wolfe cove, or l' Ance a Loup, lies 1 league to the eastward of Forteaux bay. The land between these bays, being rather low near the shore, at the head of this cove is tolerable good anchorage in 12 fathoms. On the west side lies Schooner Cove, in which is very good anchorage for small vessels in 7 fathoms water, sandy bottom. The two points that form the entrance of this cove, bear N. N. E. $\frac{1}{4}$ E. and S. S. W. $\frac{1}{4}$ W. distant 2 miles. The east point is high table land, with steep cliffs to the sea, stretching N. E. 2 miles nearly, and called the Red Cliffs.

From the Red Cliffs to the west point of St. Modeste bay, the course is N. 38° E. distant 7 miles, then N. by E. $\frac{1}{2}$ E. 1 mile to St. Modeste island, which is a small low island, within which small craft may anchor, but is a bad place.

Ship head lies $1\frac{1}{4}$ mile to the N. by E. from St. Modeste island. Round this head to the northward, is Black bay, in which there is tolerable good anchorage in 10 fathoms water.

From the west end of Red Cliffs, to the west point of Red bay, the course is N. 47° E. distant 6 leagues. This is an excellent harbour, and may be known by Saddle island, which lies at the entrance of this bay, and is high at each end, and low in the middle, and by a remarkable round hill on the west side of the bay, opposite the west end of Saddle island; the land on the west side the bay is high, and on the east side rather low. At the head of this bay it is high and woody.

There is no danger in sailing into this bay, passing to the westward of Saddle island, and taking care to avoid a small rock that lies near the west point on the main, (which shews above water at a $\frac{1}{4}$ ebb) and a shoal which stretches off about a cables length from the inner side of Saddle island. The Western bay lies in to the northward of the west point, in which is very good anchorage from the westerly winds, but open to the eastward. There is no passage, except for boats to the eastward of Saddle island. In coming from the eastward, care must be taken to avoid a small rock, which lies 1 mile from the Twin islands (which are two small black rocky islands, lying off the east end of Saddle island) and near 1 mile off shore. The afore-mentioned high round hill on the west side of the bay, on with the saddle on Saddle island, will carry you on this rock; the sea generally breaks on it.

Two leagues and a half to the eastward of Red bay, lies Green bay, in which is tolerable good anchorage for small vessels, in 12 fathoms water, but open to the S. E. winds. From Saddle island to Barge point, the course is E. N. E. distant

30 miles, and from thence to the entrance of Chateaux bay, is N. E. by E. distant $5\frac{1}{2}$ leagues.

At Red bay, the tide flows, full and change, at $\frac{1}{2}$ past 9 o'clock.

At Forteaux bay, at 11 o'clock.

At Bradore, at $\frac{1}{2}$ past 11 o'clock.

In all which places it flows up and down, or upon a perpendicular, spring tides, 7 feet; neap tides, 4 feet.

Description of the coast of Labrador from Cape Charles to Cape Lewis.

[N. B. The Bearings hereafter mentioned are the true Bearings, and not by Compass; the variation was 27° W. in the year 1770.]

Cape Charles island lies E. distance $1\frac{1}{2}$ mile from Cape Charles, and is of a moderate height, with several small rocks to the eastward and westward of it.

From the north point of Cape Charles island into Alexis harbour, the course is W. N. W. 4 miles. This island is very small and rather low. Within this island is an excellent harbour, formed by several high islands and the main; in this harbour is very good anchorage from 17 to 22 fathoms water, muddy. You may sail into it on either side of Center island, but to the northward of it is the best passage.

From Cape Charles island to the Battle islands, the course is N. N. E. $5\frac{1}{2}$ miles. This course will carry you to the eastward of the rocks, which lie 1 mile to the eastward of the northernmost Battle island. This island is high and round at the top.

From the northernmost Battle island to the River islands, the course is N. 76° W distance $7\frac{1}{2}$ miles. To the westward of the easternmost River island, is anchorage for vessels in 30 or 35 fathoms water, muddy bottom. Vessels may pass to the southward of these islands, up the river St. Lewis.

From the south point of the easternmost River island to Cutter harbour, the course is S. 50° W. distant 1 mile. In this harbour there is tolerable good anchorage for small vessels.

From the northernmost Battle island to the entrance of the river St. Lewis the course is N. 61° W. $7\frac{1}{2}$ miles; from thence the course up the river is W. by N. 5 miles; then N. 52° W. 8 miles to Woody island. (The north point of the river is low land for about 2 miles up, then the land is rather high on both sides and woody; at the head of the river is very fine wood of different kinds such as birch, fir, juniper, and spruce: this river seems to be well stored with salmon.) At about 4 miles up the river is very good anchorage, and continues so till you come up as high as Woody island; but above this island there are several shoals.

One mile to the northward of the north of St. Lewis' river, lies the entrance of St. Louis' sound, which runs up W. by N. 1 league, at the head of which is very good anchorage, in taking care to avoid a shoal which stretches off from a sandy beach on the larboard side at about 2 miles within the entrance.

From the northernmost Battle island to the entrance of Deer harbour, the course is N. 51° W. distance 3 leagues. This is a very good harbour, in which you anchor from 18 to 10 fathoms water, secure from all winds. To sail into this harbour there is not the least danger, and the best anchorage is at the back of Deer Island.

From the northernmost Battle island to Cape St. Lewis, the course is N. N. W. $\frac{1}{2}$ W. 5 miles. This cape is high ragged land; $1\frac{1}{2}$ mile to the N. W. of the cape lies Fox harbour, which is but small, and only fit for small vessels, but seems to be very convenient for a fishery.

Description of the coast of Labrador, from St. Michael to Spotted Island.

[N. B. The Bearings hereafter mentioned are the true bearings, and not by Compass; the variation was 32° W. in the year 1770.]

Cape St. Michael lies in the latitude of $52^{\circ} 46'$ N. is high land and steep towards the sea, and is to be known by a large bay which forms to the northward of it, having a number of large and small islands in it; the largest of these islands, called Square island, lies in the mouth of the bay, and is 3 miles long, and very high land.

The best anchorage for large vessels in St. Michael's bay, is on the south side; that is, keep Cape St. Michael's shore on board, then keep along the south side of the first island you meet with, which is called Long island, till you come near as far as the west end of it, and there anchor from 12 to 20 fathoms; you will there lay land-locked, and may work out again to sea on either side of Long island.

From Cape St. Michael's to the entrance of Square island harbour, the course is N. $63^{\circ} 30'$ W. distance $3\frac{1}{2}$ miles; in the entrance lies a small island, of a moderate height; the best passage is to the westward of this island, there being only two fathoms water in the eastern passage.

The N. E. point of Square island is a high round hill, and makes (in coming from the southward) like a separate island, being only joined by a low narrow neck of land, N. 54° W. distance 1 league. From this point lies the entrance into Dead island harbour, which is only fit for small vessels, and is formed by a number of islands; there is a passage out to sea between these islands and the land of Cape Bluff.

Cape Bluff lies N. by W. distance 8 miles from Cape St. Michael's, and is very high land, ragged at top, and steep towards the sea. These capes form the bay of St. Michael, in which are several arms well stored with wood.

Cape Bluff harbour is a small harbour, fit only for small vessel. To sail into it, keep Cape Bluff shore on board till you come to a small island, and then pass to the westward of it and anchor.

From Cape Bluff to Barren island, the course is N. $\frac{1}{2}$ E. distance 1 league. From the south point of this island to Saug harbour, the course is W. distance $1\frac{1}{2}$ mile. This harbour is small, but in it there is very good anchorage, in 26 fathoms water, and no danger sailing into it.

One mile to the northward of Barren island lies Stoney island. On the main within these islands lie Martin and Outer bays, in the northermost of which is very good anchorage, with plenty of wood, and no danger but what shows itself.

On the west side of Stoney island is a very good harbour for small vessels, called Duck harbour. Large vessels may anchor between the west point of Stoney island and Double island in 20 or 24 fathoms water, and may sail out to sea again on either side of Stoney island in great safety.

Hawke island lies 1 mile to the northward of Stoney island. Within Hawke island lies Hawke bay, which runs to the westward 2 leagues, and then branches into 2 arms, one running to the S. W. 2 leagues, and the other W. 5 miles; these arms are well stored with wood. After you are within Pigeon island, there is very good anchorage quite to the head of both arms.

On the south side of Hawke island lies Eagle cove, wherein is very good anchorage for large vessels in 30 or 40 fathoms water. Small vessels may anchor at the head in 7 or 8 fathoms.

On the main, within Hawke island, about 5 miles to the N. E. of Hawke bay, lies Caplin bay. Here is very good anchorage in this bay, and plenty of wood at the head.

Partridge bay lies 5 miles to the northward of Hawke island. In it is very good anchorage, but difficult of access, unless acquainted, by reason of a number

of small islands and rocks which lie before the mouth of it. The land hereabouts may be easily known. The south point of the bay is a remarkable high table hill and barren; all the land between this hill and Cape St. Michael being high, the land to the northward of it low.

From Cape St. Michael to Seal islands, the course is N. $\frac{1}{2}$ E. distance 9 leagues.

From Seal islands to Round hill Island, the course is N. $\frac{1}{4}$ E. distance 18 miles. This island is the easternmost land on this part of the coast, and may be known by a remarkable high round hill on the west part of it.

From Round hill island to Spotted Island the course is N. 86° W. distance 2 leagues. From Spotted island the land tends away to the N. W. and appears to be several large islands.

From Seal islands to White rock, the course is N. by W. $\frac{1}{4}$ W. distance 2 leagues. From this rock, the course into Shallow bay is S. W. distance 2 miles.

Here is tolerable good anchorage in this bay, and no danger, except a small rock which lies off a cove on the larboard hand, and about $\frac{1}{4}$ of the bay over; this rock sheweth above water, at low water. There is very little wood in this bay.

From White rock to Porcupine island, the course is N. 52° W. distance 2 leagues. This island is high and barren. You may pass on either side of this island into Porcupine bay, where is very good anchorage, but no wood.

Sandy bay lies on the S. E. part of the island of Ponds, and N. W. by N. $\frac{1}{2}$ W. distance 5 miles from White Rock. In it is very good anchorage in 10 fathoms water, sandy bottom, and seems very handy for a fishery, except the want of wood. Between this bay and Spotted island are a great number of islands and rocks, which makes this part of the coast dangerous.

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Remarks made between the island of Groias and Cape Bonavista.

The island Groias lies 2 leagues from the main, is about 5 leagues round. The north end of it lies in the latitude of 51° N. off from which, at $1\frac{1}{2}$ mile distance are several rocks, high above water, also off from the N. W. part; otherwise this island is bold too all round. Between it and the main is from 20 to 40 fathoms water.

The harbours of Great and Little St. Julien's and Grandsway, lie within the island of St. Julien, which bears N. W. $\frac{1}{4}$ N. distant $8\frac{1}{2}$ miles from the north end of Groias. The S. W. end of it is but very little separated from the main, and is not to be distinguished as an island, till you are near it. There is no passage at the S. W. end but for boats. To sail into these harbours, you may keep close to the N. E. end of the island, as you pass which the harbours will appear open to you. There is no danger in the way to Great St. Julien's, which is the easternmost harbour, until you are within the entrance, then the starboard side is shoal near $\frac{1}{2}$ over; when you are past the first stages, you may anchor from 8 to 4 fathoms water: To sail into Little St. Juliens, you must, (to avoid a sunken rock, which lies directly before the mouth of the harbour,) first steer directly for Great St. Julien's, till you are abreast of the entrance of Grandsway: then you may steer directly into Little St. Julien's, and anchor in 4 or 5 fathoms water. Ships in both these harbours commonly moor head and stern.

Grandsway is not a harbour for ships: but very convenient for fishing craft.

Croque harbour lies 4 miles to the southward of St. Julien's island, and has been before described.

Four miles and a half to the southward of Groias lies Belle isle, which is above 20 miles round; there is a little harbour at the south part of this island fit for

fishing craft, but it is too difficult for shipping. There are some other coves about this island, where shallows may shelter occasionally.

S. S. W. 7 miles from Croque harbour lies Carouge harbour, which bears W. $\frac{1}{2}$ N. from the south end of the island Groias. Immediately within the entrance of this harbour it divides into two arms, one to the N. W. the other to the S. W. Directly in the middle of the S. W. arm is a shoal, on which is only 7 or 8 feet water at low water; you may pass on either side of it, and anchor from 20 to 8 fathoms water, in good holding ground: There is also good anchoring in the N. W. arm; but, in general, is not so good as in the S. W. arm.

S. S. W. 3 miles from the south point of Carouge harbour lies Fox head, round which, to the N. W. lies Conch harbour, in which is good anchorage, well up to the head of it, in good holding ground, in 11 fathoms water. It is open to the S. S. E.

About 2 leagues to the S. W. from Conch, is Hilliard's harbour, by the French called Bottot; this is but a very indifferent place for shipping, but convenient for fishing craft.

Four miles and a half further to the S. S. W. is the harbour of Englée. This harbour is situated on the north side of Canada bay. To sail into this place, you must pass a remarkable low white point on Englée island, which forms the north entrance of Canada bay; then keep near the shore, until you are abreast of the next point which makes the harbour; then haul round it to the S. E. taking care not to borrow too near the point, it being shoal a cable's length off; and you may anchor from 15 to 7 fathoms, very good holding ground; but this is well up in the cove, which is too small to lie in, unless moored head and stern. In Bide's arm, which runs up north from Englée, near 2 leagues, there is no good anchorage, it being very deep water: Within the south end of Englée island there is a good harbour for shallows; but there is no passage even for boats, from thence to the place where the ships lie, except at high water, or, at least, half tide.

Canada bay lies up N. N. W. from Point Canada, (which is the south point that forms the entrance of Canada bay) upwards of $4\frac{1}{2}$ leagues. This bay cannot be of any use for shipping, otherwise than as a place of shelter in case of necessity. On being caught near the shore in a hard gale of easterly wind, ships may, with the greatest safety, run up and anchor in this bay, free from all danger. In such case, when you are above 2 small rock isles, which lie near Bide's head, called the Cross islands, you will observe a low white point, and another low black one a little above it. Off the latter a sunken rock lies about 2 cables' length; therefore keep the middle of the bay, and you will meet with no danger, except a rock above water, which lies a mile below the point of the narrows; leave this rock on the larboard hand, keeping the middle of the water, and you will carry 18 fathoms through the narrowest part; soon after you are above which, the bay widens to upwards of a mile across; and you may anchor in 18 and 20 fathoms water, good holding ground, and secure from all winds.

Three miles south from Canada point is Canada head. It is pretty high, and very distinguishable, either to the northward or the southward; but when you are directly to the eastward of it, it is rather hid by the high lands, in the country, called the Clouds.

Upwards of 4 miles to the S. W. from Canada head is Hooping harbour, by the French called Sansford. This place has 2 arms, or rather bays, the one lying up the northward, and the other to the westward. There is very deep water in the north arm, until you approach near the head; it is a loose sandy bottom, entirely open to southerly winds, and not a place of safety for shipping. In the westward arm a ship may safely anchor in a moderate depth of water.

About 4 miles to the southward of Hooping harbour is Fouchée. There is no anchorage in this place until you approach near the head, where there is a cove on the north side. The land is extremely high on both sides, and deep water close to the shore. This cove is about 2 or 3 miles from the entrance, in which there is anchorage in 18 fathoms water; but so small, that a ship must moor head

and stern. There is another arm, which runs near 2 miles above this; it is extremely narrow, and so deep water, that it is never used by shipping.

Three leagues to the S. W. from Fouchée, is Great harbour deep, by the French called Bay Orange: It may be known from any other place, by the land at its entrance being much lower than any land on the north side of White's bay, and bears N. W. $\frac{1}{2}$ N. from Partridge point. This is a large bay. A little within the entrance there is a small cove on each side, generally used by the fishing ships, though very dangerous for a ship to lie in: They always moor head and stern; notwithstanding, if a gale of wind happens to the eastward, they are in the greatest danger. Near 3 miles within the entrance of this bay, it branches out in 3 arms. In the north arm, which is much the largest, there is so deep water, you will have no anchorage until you approach near the head; the middle arm is the best place for ships to anchor, in 7 fathoms water, and a good bottom.

From Orange bay, 2 leagues to the S. W. is Grandfather's cove, by the French called l'Ance l'Union. This is an inlet of about 2 miles, directly open to the S. E. winds; it may be known when near the shore, by the north point of it appearing like an island, and bears N. W. by W. $\frac{1}{2}$ W. from Partridge point. It is but an indifferent harbour for shipping. Scarcely 2 miles further, is another inlet, called Little harbour deep, by the French, la Vache. This is also directly open to the S. E. winds; off the north point of this inlet, are some rocks, $\frac{1}{2}$ a mile from the shore, which always shew above water, about which is good fishing ground; the water is not very deep in any part of this inlet, and when you are half way from the entrance to the head, it becomes quite shoal.

About 2 leagues further to the S. W. is Little cat arm, which is an inlet that lies up west 2 miles. This inlet is about 2 miles from Great cat arm. Off the north head there are some rocks, which shew above water; to avoid which in sailing in, keep nearest to the south side; but you will find no anchorage till you approach near the head of this arm, where you will be securely land-locked.

Upwards of 3 leagues to the S. S. W. from Great cat arm, is Coney arm head. This is the most remarkable land on the west side of White bay: it bears W. S. W. distance 3 leagues from Partridge point. The land, all the way, runs nearly straight, until you come to this head, which projects out nearly $1\frac{1}{2}$ mile, forming a deep bight, which is called Great Coney arm. There is no kind of shelter for shipping at this place. N. W. from the head, is Little coney arm, which is a convenient little place for fishing craft, but at the entrance it is too shallow for a ship.

From Coney head, about 4 miles further up the bay, is a cove called Frenchman's cove, in which a ship might safely anchor.

From Frenchman's cove, about a league further to the south, round a low ragged point, is Jackson's arm, in which is pretty deep water, except in a small cove on the starboard hand, where a ship may moor head and stern. This place affords the largest timber in White's bay.

From Jackson's arm, 4 miles further to the southward, is the north end of Sop's island, which bears S. W. $\frac{1}{2}$ W. distance about $10\frac{1}{2}$ miles from Partridge point. This island is 11 miles in circuit, by which, and Goat island, is formed a long passage, or arm, called Sop's arm; in the north of which a ship may safely anchor, just within the north end of Sop's island. The best passage into this arm, is by the north side of Sop's island. There is also anchorage between Sop's island and the main, before you come the length of Goat island, but the water is deep; there is a cove at the north end of this island, called Sop's cove, and 2 other small coves opposite on the main, called Har's coves, in all of which a fishery is carried on, but ships generally anchor in the upper part of the arm, within Goat island.

From the north end of Sop's island, to the river at the head of the bay, the distance is upwards of 6 leagues. This place is called Gold cove. Here the river branches out into several small streams of water.

Near 5 leagues down from the river head, and nearest the S. E. side of the bay, lies Greenby's island, by some called Mid-bay island. This island affords no cove nor shelter for boats. On the S. E. part, about 2 cables length off, there is a shoal, whereon is not above $1\frac{1}{2}$ fathoms water. Nearly abreast, or rather below this

island, on the S. E. side of the White bay, is Purwick cove, in which shipping may safely anchor, and good conveniences for the fishery. About 5 miles to the N. E. of this cove, and W. by S. $\frac{1}{2}$ S. from the north end of Sop's island, lies Westward arm. This arm lies up about S. E. 4 miles, in which ships may safely anchor, in about 18 fathoms water; there is a cove on each side of this arm, at its entrance; that on the N. E. side, called Bear cove, is much the best, where small ships may securely moor, sheltered from all winds, in 12 fathoms water; the other cove, which is called Wild cove, is but an indifferent place, being open to the N. W. winds, and a foul rocky bottom; the point on the N. E. side of Western arm, is called Hauling point.

Two leagues to the N. E. of Hauling point, is another arm, lying up about S. E. by S. 3 or 4 miles, called Middle arm. At the entrance of this arm is a rocky island, from which, quite home to both shores, is a shoal, whereon is from 1 to 2, and in some places 3 fathoms water. The best passage into this arm is, to keep the larboard shore on board; but this is not proper for large shipping. Between this arm and Hauling point lie the Pigeon islands, about which is good fishing ground.

About $1\frac{1}{2}$ mile to the N. E. from Middle arm, is another, called Southward arm, in which a ship may safely anchor in 17 fathoms water, entirely land locked; here she will be nearly 3 miles within the heads, but there is good anchorage in any part below, from 20 to 25 fathoms, before you are near so far up. A little above the inner point, on the north side, is a mussel bank entirely across the arm, which is nearly dry at low water; and above this bank you will again have 11 and 12 fathoms, and continues deep to the river head. This arm is nearly 5 leagues above Partridge point, and may be known, when sailing up the S. E. side of the White bay, by its being the first inlet, and bears W. by S. from Coney arm head, which lies on the other side of the bay, and which head is always very conspicuous.

Near a league from Southward arm, towards Partridge point, is Lobster Harbour. This is a small round harbour, with a shoal narrow entrance; at low water, at some places in the entrance, there is not above 8 or 9 feet water, but after you are in, you will have 12 and 13 fathoms all over the harbour. Small ships may enter at proper times of tide.

It flows on full and change days, nearest E. by S. and W. by N. in all places in White bay. From Canada head the current generally sets up the White bay, on the N. W. side, and down the bay on the other side; and between Partridge point and cape John, it generally runs about S. E. by E. It is observed that the flood or ebb, scarce ever makes any alteration in the course of the current.

From Canada head to Fleur de Lys, the course is south nearly 10 leagues. This harbour is situated about 4 miles to the S. E. from Partridge point, and bears S. W. by W. $\frac{1}{2}$ W. distance about 10 miles from the west end of the westernmost of the Horse islands. The entrance of this harbour is not distinguishable, until you come pretty near the shore; but it may be known at a distance, by a mountain over it appearing something like the top of a fleur de lys, from which it takes its name. There is no danger in sailing into this harbour until you come within 2 cables length of the harbour island, which is on the south side, at which distance there lies a rock, whereon there is not above 6 feet at low water; it is shoal from this rock home to the island; to avoid which keep the starboard or north shore on board, and you may come to in any part of this harbour above the said island, in $4\frac{1}{2}$ and 5 fathoms water, sheltered from all winds.

The two Horse islands are situated between Partridge point, and cape John. The west end of the westernmost Horse island bears E. $\frac{1}{4}$ N. distance 10 or 11 miles from Partridge point; and the S. E. part of the easternmost island bears N. W. by W. from cape John, distance near 5 leagues. These islands are about 6 leagues in circuit, and tolerable high; there are 3 rocks above water lying to the northward of the easternmost, and on the east side of the said island are sunk-on rocks, at some places near a mile from the shore. There is a small harbour, fit for shallows, at the S. E. part of this island.

Bay Verte and Mynx lie to the S. E. from Fleur de Lys, are small places not fit for shipping. At Mynx it is impossible for more than one ship to lie, which is between a small rock island and the main, moored head and stern. Between these places is bay of Verte or Little bay, which runs up S. E. full 3 leagues; and towards the head there is plenty of good timber. Bay of Pipe, or Mynx, is an inlet of about 5 miles, affords no anchorage, except at Mynx, which is at the entrance as before mentioned.

Near 5 leagues to S. E. from Fleur de Lys, is the harbour of Pacquet, at $\frac{1}{2}$ a mile within the entrance. This harbour divides into 2 arms, the one extending to the N. W. and the other to the S. W. The N. W. arm is a very good place for shipping to lie in entirely land-locked; the S. W. arm is a mile long, but narrow, yet is a safe snug harbour. This harbour is not very distinguishable until you approach pretty near; it bears S. $\frac{1}{2}$ W. from the passage between the Horse islands, and may be known by the south head, it being a high rock mountain; the north point is rather low, off which lie 3 rock isles; both shores are bold too. Steer directly in, and anchor in the N. W. arm, in about 14 fathoms water.

About 2 leagues from Pacquet, to the S. E. is Great round harbour. This is a convenient little harbour for fishing ships; there is no danger in sailing into it; both shores being bold too, you may anchor within the 2 inner points in 4 and 5 fathoms, entirely land-locked. Little round harbour, which is about $1\frac{1}{2}$ mile round a point to the N. E. from this, is not fit for shipping; it is only a cove, wherein is but 2 fathoms, and a loose sandy bottom.

About 4 miles to the S. W. from Cape John, is the small harbour of La Cey. This place is open to the N. N. W. There is no danger in sailing in; you may anchor in any depth you please, from 8 to 3 fathoms water.

Cape John is a lofty ragged point of land. It lies in the latitude of $50^{\circ} 6' N.$ and may be known by the Bull isle, which is a small, high, round island, bearing nearly east, about 4 miles from the pitch of the cape.

From Cape John to the bay of Twillingate, the course is S. E. by E. distance 11 or 12 leagues. This is but an indifferent place for shipping, it being directly open to the N. E. winds, which heave in a very great sea. N. $\frac{1}{2}$ W. about 4 miles from the entrance of this bay, there is a bank, on which, in the winter, the sea has been seen to break, between which and the shore there is from 50 to 80 fathoms water.

Wire cape cove, which lies on the west side of the westernmost Twillingate island, that makes Twillingate bay, is a place for fishing craft only.

From Cape John to Fogo head, the course is E. by S. $\frac{1}{4}$ S. distance 17 or 18 leagues. Immediately to the eastward of this head is Fogo harbour. This is a pretty good harbour for fishing ships, &c. but the entrance is intricate and dangerous. To sail into this harbour with a westerly wind, and coming from the westward, keep close on board of Fogo head; it is very bold too, and nothing to fear until you open a narrow entrance, scarcely half a cable's length wide. Steer directly in, keeping right in the middle, and you will carry from 8 to 4 fathoms water through. When you are through this passage, which is commonly called the West Tickle, if you intend to anchor in the westward bight, steer to the S. E. till you bring the point between the bights to bear W. by N. to avoid the harbour rock, which is a sunken rock, that scarcely ever shews but at dead low water spring tides; then you may haul up to the westward, and anchor from 6 to 5 fathoms, good holding ground, and sheltered from all winds.

Coming from the westward, you must not be afraid to make bold with Fogo head, otherwise you will miss the west Tickle; and as there is generally (more particularly with a westerly wind) a strong current running to the eastward, ships making that mistake, seldom can work up again; Coming from the eastward, and bound to Fogo, to avoid Dean's rock, (which is a sunken rock, in the passage between Joe Batt's point and Fogo harbour,) when abreast of Joe Batt's point, you must steer W. N. W. (by compass) until a remarkable round hill, called Brimstone Hill appears in the hollow of the harbour. Then you may steer directly for the East Tickle, which may be known by the lanthorn on the top of Sim's isle, which

makes the west side of the Tickle; as you approach, you will discover the entrance. Give birth to the point on the starboard hand, which is that on Sim's isle, and steer directly up the harbour, keeping nearest the south side, and you will carry from 5 to 3 fathoms water through: immediately when you are round the point, steer S. S. W. to avoid the harbour rock, and follow the above directions for anchoring. As there are 2 entrances to this harbour, and both narrow, you may choose according to the wind. The middle Tickle is only fit, and even intricate, for shallops, though it appears the widest.

About 7 miles to the N. E. from the entrance of Fogo harbour lies Little Fogo island; from which, above 2 leagues distance, to the northward, eastward, and westward, lie a great number of small rocks, above and under water, which makes this part of the coast exceeding dangerous, especially in foggy weather.

Between the bay of Twillingate and Fogo head, nearly midway, lies the isle of Bacaleau. To the S. W. from this island, near 3 miles, is the harbour of Herring neck, which is a fine harbour, sufficient for any ships.

From the round head of Fogo, which is the N. E. part of the island, to the outermost Wadham's island, the course is S. E. by E. distance 14 or 15 miles. There is a very good passage between these islands, often used by shipping. This passage is above a mile wide, and is between the second and third island; that is, you are to leave 2 of the islands without, or to the northward of you. Those islands are about 5 leagues in circuit, and lie near 2 leagues from the main land.

From the outermost of Wadham's islands, that is the N. E. isle to the Gull isle of Cape Freels, the course is S. E. distance 10 leagues. Gull isle is a small rock island, and lies about a mile and a half from the pitch of Cape Freels, which is a low point of land; between this cape and Green's pond island are several small islands and sunken rocks along shore. There is no passage from the cape towards Green's pond for shipping within the Stinking isles, without being very well acquainted.

The Stinking islands lie S. S. E. 2 leagues from Gull island, and N. N. W. 13 leagues from Cape Bonavista.

N. $\frac{1}{2}$ E. from Cape Bonavista, and N. 27° E. about 10 leagues from Cape Freels, lies Funk island. This island lies in the latitude of 49° 52' N. it is but small and low, not to be seen above 4 or 5 leagues in clear weather. There are 2 small isles, or rather rocks, at a small distance from the N. W. part. This island is much frequented by sea birds of various kinds.

About W. N. W. distance 7 leagues from Funk island, lie the dangerous rocks, called Darel's ledge, upon which the sea almost always breaks.

Green's pond harbour is situated on the west side of Bonavista bay, and bears from the Stinking isles, S. 63° W. distance upwards of 4 leagues. It may be known by the Copper islands, which lie to the southward of the harbour, and are pretty high, and sugar-loaf topped. This harbour is formed by several islands, that are detached about half a mile from the main land, the largest of which is called Pond isle, and makes the north side of the harbour. This island is tolerable high, and near 5 miles in circuit. The other islands, making the south side, are but small. This is but a small harbour. Towards the upper part 2 ships can scarcely lie a-breast. There is no danger in sailing into this harbour, until you approach its entrance, where you must be careful of a shoal; it is but of very small extent, whereon is not above 6 or 7 feet at low water; you may pass on either side of this shoal; but the north side is the widest and best passage.

S. 70° W. about 4 miles from the Copper island is Shoe cove point. About 2 miles to the northward of this point lies New harbour, in which ships may safely anchor, though it is but a small harbour.

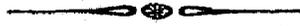
Indian bay runs up west about 4 leagues above this harbour; at the head of which there is plenty of good timber.

From Copper island to the Gull isle of Cape Bonavista, the course is S. E. $\frac{1}{4}$ S. distance 10 $\frac{1}{2}$ leagues; and S. 20° W. distance 2 leagues from Gull island, lies

Port Bonavista. It is a very unsafe place for ships to ride in, being directly open to the winds between the N. and W. and a loose sandy bottom.

Barrow harbour bears W. $\frac{1}{2}$ N. 8 leagues from Port Bonavista. This is a very good harbour.

From Port Bonavista, W. $\frac{1}{4}$ S. about 10 miles, lies the little harbour of Keels, which is only fit for fishing craft.



Directions for navigating from Cape Race to Cape Bonavista, with remarks upon the Fishing Banks.

FROM Cape Race to Cape Ballard, is N. N. E. about $3\frac{1}{2}$ or 4 leagues between which, about half way, is Clam cove, which is only for boats: and near to Cape Ballard, is another cove, called Chain cove, where are several rocks lying before it (but there is no harbour, or bay, for ships to ride in) and fish between the two capes.

But to the northward of Cape Ballard is another cove for boats; and about 4 miles from the cape is Freshwater bay, near half way between Cape Ballard and Renowes, Renowes being the southernmost harbour the English have in Newfoundland.

From Cape Ballard to the south point of Renowes, the course is N. N. E. about two leagues. Renowes is but a bad harbour, by reason of sunken rocks going in, lying off the fairway, besides other rocks on each side, but it is a good place for fishing.

Those who go in there should be very well acquainted; when you are in, where ships usually ride, you have not above 15 feet water, and but small drift, by reason of shoals about you, and a S. S. E. wind brings in a great sea, so that it is very bad riding, and only used in summer time: the harbour lies N. W. about a league in; but you must keep the south side going in, for that is the clearest.

Off the south point of the entrance of the harbour is an island, a small distance from the shore; and off the said south point of the harbour, S. E. by E. about half a league, is a great rock high above water, called Renowes rock, which you may see at least 3 leagues off in fair weather, but the rock is bold to go on either side.

From Renowes point to Fermowes, is $1\frac{1}{2}$ league N. E. by N. N. E. and N. tending about, but being a little without Renowes, the course will be N. N. E. till you come open of the harbour of Fermowes. Between the said two harbours is a cove, called Bears' cove: a place only for boats to stop at if the wind be contrary, but no inhabitants.

Fermowes is a very good harbour, and bold going in, no danger but the shore itself; it lies in N. W. and N. W. by W. Being past the entrance, there are several coves on each side of the harbour, where ships may and often do ride: the first cove on the starboard side (going in) or north side, is called Clear's cove, where ships seldom (but may) ride; the next within it, a little distance on the north side, is the Admiral's cove, (where lives a planter;) in this cove you lie land-locked from all winds, and ride in 7 or 8 fathoms, good ground.

The Vice Admiral's cove (so-called) is on the south side, farther in, or more westerly, and is a very good place to ride in for many ships, good ground, and above the said cove, on the south side, farther in, is another arm or cove, where also you lie secure. You have about 20 fathoms water in the entrance of the harbour; but within you have from 14 to 12, 10, 9, 8, 7, and 6 fathoms, as you please, and the head runs up at least $4\frac{1}{2}$ miles.

From Fermowes to Augya fort, the course is N. by E. about a league, between which are two heads, or points of land, about a mile from each other, the southernmost, or next to Fermowes, is called Bald head, about a mile from the har-

bour's mouth of Fermowes; between which is a pretty deep bay, but all full of rocks, and no safety for boats to come on shore at in a storm: it is but a mile from the harbour, which is safe for ships or boats, and not above 2 miles to the entering of Agua fort.

The next head to the northward of Bald head is Black head, lying N. and S. one from the other, about a mile asunder; and from Black head to the point of Agua fort harbour, is N. W. by N. 1 mile, which harbour is very good, and safe, for ships; it lies in W. N. W. There is a great rock above water going in on the south side, which is bold too; you run up about 2 miles within the harbour's mouth, and ride on the north side, and lie land-locked, as it were a pond, like to Ferryland pool, but larger, where, with a piece of timber, you may make a stage from your ship to your stage on shore, being an excellent harbour, and water deep enough.

From Agua fort to Ferryland head (the south part of the head) the course is east, about 3 miles. Crow island, being about a mile from Agua fort, lies E. N. E. from the harbour's mouth, and from the S. E. end of Crow island lies a shoal about a cable's length.

From the north part of Ferryland head to Ferryland, the course is W. by N. about 2 miles; to go into Ferryland port or harbour, you must sail between the north part of Ferryland head and Buoy island; it is not very broad, but there is water enough, and clean ground; being within the said Buoy island, you may run in and anchor where you please, it being of a good handsome breadth; or you may go into the Pool, which is a place on the larboard side (going in) with a point of beach, where you ride in 12 feet water at low water, and where the admiral's ships generally ride, (the stages being near, several planters, inhabitants, live in this place.) From Buoy island, almost in to the land to the westward, are small islands and rocks, which make Ferryland harbour, or port, and divide it from Caplin's bay; between the said rocks, in some places, is a passage for boats, and the water rises hereabouts $3\frac{1}{2}$, 4, and sometimes 5 feet, and sometimes 3 feet, and so it does generally in all the harbours of this land.

From Ferryland head to cape Broyle head, is N. by E. almost 4 miles, between which are three islands, which lie before Caplin's bay; there are channels to sail between them to Caplin's bay, that is, between Buoy island, which is the sternmost and greatest, and Goose island, which is the middlemost, and is the second in bigness next to Buoy island; also you may sail through between Goose island, which is the middlemost, and stone island, which is the northernmost; but these passages are large enough for ships to sail or turn in or out; but between Stone island and the north shore, (that is, cape Broyle) there is no passage for a ship, only for boats, there being a great rock between Stone island and the north shore.

Caplin's bay is large and good, and runs in a great way W. N. W. at least 6 miles within the said islands, where many ships may ride in good ground, and where sometimes the Newfoundland ships meet that are bound with convoy to the Straights but generally rendezvous at the bay of Bulls.

From cape Broyle head, (the north part of it) which lies in the bay or harbour of cape Broyle, W. N. W. and N. W. by W. about $7\frac{1}{2}$ miles, and from the south point of the entrance to the north point or head, is about 2 miles broad, and lies N. by W. and S. by E. one from the other.

Cape Broyle is the most remarkable land on all the south coast of Newfoundland, for coming out of the sea either from the southward or northward, it makes a swamp in the middle, and appears like a saddle. E. S. E. from the north point of cape Broyle, about $\frac{1}{2}$ or $\frac{3}{4}$ of a mile, lies a sunken rock called Old Harry, on which is but 18 feet water; the sea breaks upon it in bad weather, but between the shore and it, is water enough of 12 and 13 fathoms, and without it is a ledge of about the same depth, where they used to fish, but off the ledge is deep water of 40 or 50 fathoms and deeper. In very bad weather the sea breaks home almost

to the shore from Old Harry, by reason of the current that sets strong generally to the southward.

From cape Broyle to Brigus by south, (so called, to distinguish it from another Brigus in the bay of conception) is a league, but from the north head of Cape Broyle bay to Brigus, is but a little more than a mile, and lies in N. W. and N. W. by W. Brigus is a place only for small ships of not above 7 or 8 feet draught of water to ride in the cove, which is not altogether safe neither: it is a place for fishing, where live two planters; there is an island so called, where they build their stages, and make their fish upon, who come there fishing, but the water comes not quite round, unless in a great storm or rage: It is a place of little consequence.

From cape Broyle to Cape Neddick, the course is N. by E. northerly, 5 leagues; and from Brigus point to cape Neddick, is N. E. almost $1\frac{1}{2}$ mile between which is Freshwater bay, but of no note. Cape Neddick is a high point, flat at top, and straight down to the water.

From Cape Neddick to Baline head is about $\frac{1}{2}$ a league N. E. by E. between which is Lamanche. Lamanche is only a cove in the bay, where is no safe riding for any ship.

From Baline head to Baline cove is near 3 quarters of a mile: it is a place where ships use to keep 2 or 3 boats with a stage for fishing, where one planter lives; the place is not for ships, only small vessels may come in to lade, and lie within the rock called the Whale's back, which rock breaks off any sea, and there are 2 rocks above water, one on each side going in, and the Whale's back in the middle but without the said rocks that are above water.

Against Baline cove lies Goose island, about a mile, or $\frac{1}{2}$ a league to the seaward of Baline. Goose island is a pretty large island, $\frac{3}{4}$ or near a mile long.

From Baline head to Isle de Spear is N. N. E. a mile within the greatest of the said islands, which is the northernmost. Ships every year fish there; on this island is a stage on the inside, that is on the west side, and good riding in summer season, the island being pretty large, but the northernmost island is only a round hill fit for no use.

The next to the Isle de Spear is Toad's cove, where a planter lives, a place for boats to fish, but not for ships to ride.

A little without Toad's cove (or to the eastward) is Boxes island, between which and it is no passage, but only for boats to go through at high water.

From Baline head to the Momables bay is N. by E. about 4 miles, and lies N. W. near 2 miles; it lies open to the sea, yet is a good place for fishing.

From Baline head to the north point of Momables bay (which is the south point of Whittless bay) the course is N. N. E. northerly 4 miles off, which point is a shoal of rocks that lie a great way off, so that men must be well acquainted to go with ships between the said point and Green island, which is a small island right off against the said point, a little more than a mile; for if you intend to come through between them, then it is best to keep the island side, which is clearest.

From the said shoal point or south point of Whittless bay, the land on the south side of the bay lies in, first part N. N. W. and after more westerly.

From the south point of Whittless bay to the north point of the said bay is N. E. by N. about a league, so that it is a large going into the bay, and about a league within gull island to the head of the bay, there is turning in or out, but about half way into the bay on the north side (where the planters live and the Admiral's stage is) there is a ledge of rocks which you must avoid: the most part of them may be seen above water: you may lie but little without the outermost, which appears dry. This is a far better bay than Momables, by reason of the Gull and Green island lying without before it; you may sail between the islands, or between Green island and the south point of Bay Bulls, yet ships, after the beginning of September, will not care to ride in Whittless bay, but rather come

to Bay Bulls, which is but $1\frac{1}{2}$ league by sea to it, and not above $2\frac{1}{2}$ miles over land.

From Cape Broyle to Bay Bulls is N. N. E. half easterly, 5 leagues from the south head of Bay Bulls to the north head, called Bull head, the course is N. E. northerly, $1\frac{1}{4}$ mile, or thereabouts, between which 2 heads go in the Bay Bulls, lying W. N. W. for at least two miles, and after that N. W. for about a mile, to the river head. In this bay is good riding, from 20 fathoms at the first entrance between the heads, to 18, 16, &c. after you are shot within Bread and Cheese point, which is a point half the bay in, on the north side, where there is a cove in which the Admirals keep their stage. You must give this point a little birth, for a sunken rock that lies off that point not $\frac{1}{2}$ a cables length, else all the bay is bold too, and nothing to hurt you but what you see. Being past that point, run up and anchor (or turn up) against the high hills called Joan Clay's hill (bring it N. E.) in 13 or 14 fathoms, which you will have there almost from side to side, but merchantmen run farther in, and anchor, some in 10, 9, or 8 fathoms, not above a point open, and others not above $\frac{1}{2}$ a point. Men of war ride not 3 points open. Here, generally, the fleet is made up; that is, here they meet ready to sail (commonly for the Straights) by the 15th or 20th of September. It is from side to side against Joan Clay's hill as aforesaid, 430 fathoms, so that it wants but 10 fathoms of $\frac{1}{2}$ an English mile broad.

From Bay Bulls to Petty harbour, the course is N. E. by N. $3\frac{1}{2}$ or 4 leagues between which is nothing remarkable of bays or coves, but a steep dead shore only. About midway is a place called the Spout, being a hollow place which the sea runs into, and having a vent on the top of the land, near the water side, spouts up the water in such a manner that you may see it a great way off, especially if there be any sea, which causes the greater violence.

The entrance to Petty harbour is a large bay, for from the south point to the north point is a league distance, N. N. E. and S. S. W. and it is a league in, where the ships ride that fish there, being but a little cove. It lies in W. N. W.

From the north point of Petty harbour to Cape Spear, the course is N. E. by N. 2 miles, or thereabouts, and from thence the land tends into the N. W. to Black head, and so to the harbour of St. John's.

From Cape Spear to the harbour of St. John's is N. W. by N. 4 miles; between which are three bays: the first is from Cape Spear to Black head, and is called Cape Bay; the second is from Black head to Low point, and is called Deadman's bay, several men and boats being formerly lost in that bay; the third is from Low point to St. John's harbour, and is called Fresh water bay.

The harbour of St. John's is an excellent good harbour, (though narrow in the entrance,) and the chief in Newfoundland, for the number of ships used and employed in fishing, and for smacks; as also for the number of inhabitants here dwelling and remaining all the year; it is narrow going in, not above 160 fathoms broad from the south point to the north point, but bold to the very rocks, on shore itself, and you have 16 or 17 fathoms, the deepest between the 2 heads; it lies N. N. W. but it is yet more narrow after the first entrance, by reason of 2 rocks lying within, on each side, but above water, between which you are to sail, it being just 95 fathoms broad between them. But being past them you may run in boldly, (it being then wider by a great deal,) and can take no hurt but from the shore, only within the aforesaid rock. On the south side of it, a point within Ring-noon, (which is a small bay,) there lies a sunken rock about 30 fathoms off the shore, which has not above 8 feet water on it. Being in the harbour, you may anchor in 8, 7, 6, 5, or 4 fathoms, as you please, and be land-locked from all winds, for it lies up W. S. W. You must observe that you cannot expect to sail in, unless the wind be at S. W. or to the southward of it, and then the wind casts in between the two hills, till you are quite within the narrow, and there you have room enough. But if it be W. S. W. or more westerly, the wind will east out, and you must warp in.

But be sure, if unacquainted, that you mistake not the harbour of St. John's

for a place called (Quiddy Viddy or) Kitty Vitty, which is with in a mile of it, and shews an opening like a good harbour, as St. John's, but it is not so, being a place only for boats to go in; it is narrow and dangerous, even for boats, at low water; you may know it by a round bare hill (head like) in the form of a hay-cock, which is called Cuckold's head, and is just at the south part of the entrance of this Kitty Vitty, and to the northward of St. John's $\frac{1}{4}$ of a mile, or more: but besides this your course from Cape Spear will guide you.

From St. John's to Torbay, the course is between N. by E. (being at a little distance without the harbour) and N. About $2\frac{1}{2}$ leagues between St. John's and Torbay, are several points which have names given them, that is, from St. John's to Cuckold's head, going into Kitty Vitty; the next is Small point, which lies N. E. by N. about 2 miles from St. John's; the third is Sugar-loaf point, and lies N. by E. from Small point, $\frac{1}{2}$ a league; the fourth is Red head, and lies north from Sugar loaf; about 2 miles between which, that is, Sugar loaf and Red head, is a bay, called Logy bay; and the fifth point is the south point of Torbay, and lies N. by W. $\frac{1}{2}$ a point westerly, from Red head, about 2 miles. The point of Torbay is lower than all the rest. From the said south point of Torbay to the anchoring place where ships usually ride, the course is W. by N. 2 miles and more, where you anchor in 14 fathoms against Green cove. But if you are open of the bay, the course is W. S. W. for the bay is large, and at least 1 league from the south point to the north point, which north point is called Flat rock; so that if you come from the northward by Flat rock, (which is a low black point, with a flat rock lying off it, and breaks on it) your course then into Torbay is S. W. a league. There live 2 planters at Torbay. It is a bad place for ships to ride in with the wind out at sea, for being open to the ocean there falls in a great sea.

From the north point of Torbay (called Flat rock) to Red head by N. the course is N. by W. about $\frac{1}{2}$ a league; but from Flat rock to Black head by N. the course is N. by W. $\frac{1}{2}$ W. 2 leagues.

From Black head to Cape St. Francis is N. W. 5 miles; Cape St. Francis is a whitish point, and low in comparison to the other land, but at sea the high land over it is taken for the cape. Within the point of the cape to the southward of it is a cove, called Shoe cove, where boats used to come a tiling, (using the fisherman's expression,) that is, to spit and salt the fish they catch, when blowing hard and is bad weather, cannot get the places they belong to in time. In this cove you may haul up a boat to save her if the wind be out, for with northerly, westerly, and southerly winds you will lie safe. There is a good place off it to catch fish.

About $\frac{1}{2}$ a league off, triangular-ways, from Cape St. Francis, lie sunken rocks; the outermost lie E. N. E. from the cape, about $1\frac{3}{4}$ mile. There are also great rocks above water, like small islands, the outermost of which lies about $\frac{1}{4}$ of a mile east from the cape; and the innermost not half a mile off shore, between which rocks (or island) and the sunken rocks you may go (as has been done) with boats, and find water enough for any ship; but men are unwilling to venture, there being no advantage in the case. These great rocks make the afore-said Shoe cove the better and more safe.

There is also another cove to the northward of the point of the cape, for boats when the wind is off the shore, but else not safe.

From Cape St. Francis to Belle isle is S. W. and S. W. by S. 5 or $5\frac{1}{2}$ leagues, being a large island, not above a league from the shore, against which island, on the main, is a cove called Portugal cove, where they used to catch and cure fish in summer time, and lies to eastward. Belle isle is about 2 leagues in length, and about 3 miles broad, and the ships that fish there lie in a little cove on the south side of the island, which will contain 5 or 6 ships, according to the rate as they lie in Bay Verds.

From Cape St. Francis to the island of Bacalieu, is N. by E. about 10 leagues. Bacalieu is an island 2 leagues long, and above $\frac{1}{2}$ a league broad, about which boats used to fish; there are no inhabitants on it, but abundance of fowls of sea-

veral sorts, which breed there in the summer time. Between this island and the main is about a league, where you may sail through with ships, if you please. Bay of Verds head and the S. W. end of Bacalieu lie E. by N. and W. by S. one from the other about $1\frac{1}{2}$ leagues.

From Cape St. Francis to the bay of Verds head, is N. about $8\frac{1}{2}$ leagues; and from the head to the bay or cove, where ships ride, is about $\frac{3}{4}$ a mile to the westward of the head; the place where ships ride is not above a cable's length from one point to the other, which lie N. and S. one from the other; you lay your anchors in 10 fathoms, and your ships lie in 5 fathoms with a cable out; your stem then is not above $\frac{1}{2}$ a cable's length from the stages. The ships that ride there, are forced to seize their cables one to another, and you cannot ride above 7 or 8 ships at most; it is a bad place, and hazardous for ships to ride, except in the summer time, by reason of the great plenty of fish, and they being so near them, make fishing ships desire that place the more, although there are several inconveniences in it, as being a very bad place for wood and water &c.

The ships lie open to the S. W. in the bay of consumption. There is a cove also on the east side of the bay Verds head, about a musket shot over from bay Verds itself, called the Black cove, where stages are, and boats kept to catch fish.

Bay Verds is easily to be known by the island Bacalieu, and also by another head within Bacalieu, shooting out, called Split point, and also Bay Verds head itself, which is the westernmost; these 3 heads shew very bluff, and very like one another, when you come from the southward; there is no danger in going into Bay Verds but what you see. Here dwell several planters.

From Bay Verds head to Split point, which is against Bacalieu island, your course is E. N. E. about $\frac{1}{2}$ a league.

From Bay Verds head to Flamborough head, is S. W. by W. about 2 leagues, Flamborough head is a black steep point, but no place of shelter for a boat, but when the wind is off the shore, neither is there any safety between Bay Verds and Carbonera (which is about $10\frac{1}{2}$ leagues, and lies S. W. by S.) only 2 places for boats, the one in the S. W. cove of Green bay, which is but an indifferent place, and lies S. W. about $4\frac{1}{2}$ leagues from Bay Verds; the other in Salmon cove, which is about 3 leagues to the northward of Carbonera.

From Bay Verds head to Green bay is S. W. about $4\frac{1}{2}$ leagues. This bay is above a league over, but has nothing considerable in it, only the aforesaid S. W. cove, and a place in the bottom of the bay, where the Indians come every year to dig oaker, to oaker themselves.

From the south point of Green bay to Black head is S. W. a league; and from Black head to Salmon cove is S. W. by W. 4 miles; it is a place of shelter for boats, an island lying in the middle; a river in the said cove runs up, in which are plenty of Salmon.

From Black head to Carbonera is S. W. $\frac{1}{2}$ S. between 4 and 5 leagues.

From Salmon cove to Carbonera, the course is S. W. about 3 leagues. The south end of Carbonera island is low, upon which is a fort of 20 guns, which the merchantmen made for their defence. The harbour of Carbonera is very bold on both sides, so is the island, between which and the main are rocks, which are just under water. This is a good place for ships to ride in, and for catching and curing fish, having several inhabitants, with good pasturage, and about 100 head of cattle, which afford good milk and butter in the summer time. There is very good anchoring, in clear ground, fair turning in or out, being a mile broad, and 3 miles in the river, riding in 5, 6, 7 and 8 fathoms, or deeper water, if you please. But to the northward of this point of Carbonera, are two coves, where p'alters live, and keep boats for fishing; the northernmost of these two coves is Clown cove, not good for ships, but boats, being about 2 miles from Carbonera; the other is called Crocket's cove, where live two families, and is but a little to the northward of the entrance of Carbonera bay or port.

If you are bound or intend for Carbonera, you may go on which side the island you please, which lies without the bay (or entrance) about a mile from

the shore; but if you go to the southward of the island, you must keep the middle between the point of the island, and the south point of Carbonera, because it is foul off the S. W. end of the island, and off the south point of the main, therefore your best going in is to the northward of Carbonera island, and so is the going into Harbour Grace, to the northward of Harbour Grace island; Carbonera lies in W. S. W. $2\frac{1}{2}$ or 3 miles, and from Carbonera to Harbour Grace S. S. E. a league or more.

Carbonera and Harbour Grace lie N. N. W. and S. S. E. one from the other, above a league; but Harbour Grace lies from the entrance W. S. W. at least 8 miles, and is a mile broad. But between Carbonera and Harbour Grace is Musketa cove, where ships may ride, but seldom use it. Here live two planters. It is not so convenient for fishing ships as other places, although clean ground, water enough, and large.

You may turn into Harbour Grace all the bay over, from side to side, and come off which side you please of the rock, called Salvages, which is almost in the middle of the channel. But there is another rock on the north side, called Long Harry, something without Salvages, near the north shore, where you go between the main and it with boats, but needless for ships, although water enough. Both the rocks are a great height above water. Being within, or to the westward of the rock Salvages, you may turn from side to side, by your lead, till you draw towards a mile off the point of the beach, (within which the ships ride;) you may then keep the north shore, because there is a bar or ledge shoots over from the south side, almost to the north shore.

To know when you are near the said bar, or ledge, observe this mark; you will see two white rocks on the land, by the water side, in a bank on the north side; which shews whiter than any place else, and is about a mile below, or to the eastward of the beach, which is good to be known, being a low point, nothing but beach for some distance; keep the said north shore pretty near, where you will have $3\frac{1}{2}$ fathoms on the bar, and presently after 4, 5, 6 and 7 fathoms; but if you stand over to the southward till you are got within the said bar or ledge, you will not have above 7, 8 and 9 feet water: this sand tends S. E. from athwart the aforesaid two white rocks, and runs over close to the south side, but being past that, as aforesaid, you may turn from side to side, till within the beach, and ride land locked, in 4, 5, or 6 fathoms, or higher up, in 7, 8, 9 or 10 fathoms, as you please. The harbour or river runs up S. W. by W. at least 2 leagues above the beach, navigable.

Being bound to Harbour Grace, be sure to go the northward of Harbour Grace islands, which lie before the harbour, above a mile off, for the southward of the islands, between it and the south shore of the harbour, is foul ground: the harbour lies in W. S. W.

From Harbour Grace to Cape St. Francis, is East Northerly, $7\frac{1}{2}$ leagues.

From Harbour Grace to Bryant's cove, is S. W. about half a league, but is no place where ships use: one planter lives there, it being a good place for catching of fish. In the entrance of this cove lies a rock in the middle, but above water. You may go in on either side with a ship, and have 4 or 5 fathoms, and anchor within it in clean ground.

From Harbour Grace to Spaniard's bay, is S. S. W. about 3 leagues. This bay is deep and large, almost like Bay Roberts: But there are no inhabitants, neither do men use this place for fishing, but there is good anchoring all over the bay; it is but a small neck of land over Bay Roberts.

From Spaniard's bay to Bay Roberts is S. E. by E. southerly, about 2 miles. This bay is about $2\frac{1}{2}$ miles broad, from the north point to the south point, which lie N. W. and S. E. one from the other; there is very good turning into the bay, and no danger but what you see. You may borrow on either side, and go close to the island, which lies on the starboard side going in. The bay is at least 3 leagues long from the first entrance; it runs up with two arms, after you are a league in, the one lies up W. N. W. and is the deepest, and the other S. W. Being

past the island, or to the westward of it, which is bold too, you may run up about a mile, and lie landlocked in 9 or 10 fathoms, within the island.

From Bay Roberts to Port Grave is 3 or 4 miles about the point; this bay is large, deep and very bold, as the other bays are; there is a cove on the starboard side going into this bay, called Sheep's cove, where you may moor your ship by head and stern, and ride in $4\frac{1}{2}$ and 5 fathoms, but your anchor to the S. W. lies in 22 fathoms, about a cable and a $\frac{1}{4}$ length from your ship.

From Sheep's cove to Port Grave, is W. by S. a mile, or somewhat more, but ships ride not within the small islands which are by Port Grave, it being shoal water within them, but ride off without them.

From Sheep's cove to Cupid's cove the course is S. S. W. about 4 miles: it is a good place for a ship or two to ride in, in 4, 5, or 6 fathoms, and not above a point open; the cove lies in S. W. and the south side of the bay to Burnt-head lies N. E. by E. and S. W. by W. one from the other, about a league; for Sheep's cove, and Cupid's cove are in the same bay of Port Grave; but Cupid's cove is on the south side, and the other on the north side; the bay runs up W. S. W. and is about 3 leagues long.

Burnt-head, which is the south point of the bay, and Port Grave, lies S. E. by E. and N. W. by W. $2\frac{1}{2}$ or 3 miles. Burnt-head is so called by reason the trees that were on it are burnt down.

From Burnt-head to Brigus is S. by W. 1 league. The south point of Brigus is a high ragged point, which is good to know it by; the bay of Brigus is not above half the breadth of Port Grave bay, and you run up S. W. by W. and W. S. W. about half a league, and anchor on the north side, where two planters live in a small bay. Only small ships use this place, it being so far up the bay of Conception.

From Brigus to Collier's bay is S. S. W. $2\frac{1}{2}$ or 3 miles: and from Collier's bay to Salmon cove is S. about $2\frac{1}{2}$ miles, but no considerable place. It is sometimes called Salmon pool.

From Salmon cove to Harbour main the course is S. S. E. about 2 miles. It is a good place for fishing, but ships seldom go so high up in the bay.

From Burnt head to Harbour main is about $3\frac{1}{2}$ leagues: and from Harbour main to Holy-road is S. E. by S. about 2 miles: then the land tends about to the eastward towards Belle-isle. Holy-road has 11 fathoms water, good ground.

From Bay Verd's head to Split point the course is E. N. E. $\frac{1}{2}$ a league.

From Split point to the point of the Grates, N. N. W. two leagues.

From the point of the Grates to the N. W. or north end of the island Bacalieu, the course is E. by S. $4\frac{1}{2}$ or 5 miles.

From the Grates to Break heart point, N. N. W. W. N. W. and W. tending about two points. Between the Grates and this point is a bay, where boats may lie with a wind off the land of Break-heart point; there is a ledge of rocks, but above water.

From Break-heart point to Sherwick point, going into Old Perlican, the course is S. W. by S. 5 or 6 miles. To the southward of Break-heart point is a small island some little distance off the shore, called Scurvy island; between the said island and Sherwick point runs in a pretty deep bay, and lies in S. E. from Sherwick point, about $\frac{1}{2}$ of a mile.

Sherwick point is bold, off which is a rock above water; this point is the north point of Old Perlican. Those who are bound to Old Perlican, cannot go with a ship to the northward of the island, that is, between the island and Sherwick point. Although it seems a fair passage, yet it is altogether foul ground, and a shoal of rocks from the main to the island (which island is about a mile and $\frac{1}{2}$ round, and about $\frac{1}{2}$ a mile in length;) therefore whoever intends for Old Perlican with a ship, must go to the southward of the island, between that and the main, and run in within the island, and anchor in 4 or 5 fathoms. But there is a rock just even with the water, and some under water, that lie about the middle of the bay, within the island, or rather nearest to the main. Old Perlican is but an in-

different road; if the wind comes out at W. N. W. you are forced to buoy your cables for the badness of ground, and the boats go a great way to catch fish about 5 or 6 miles, unless it be in the very middle of summer. In this place live several plants.

From Old Perlican to Sille cove is W. S. W. Southerly, about 7 leagues; Sille cove is but an indifferent place for ships, such as Bay Verds.

From Old Perlican to New Perlican, the course is W. S. W. 3 leagues. This is a good harbour, where you may lie landlocked in 5, 6, 7, 8, 9 or 10 fathoms. It is very bold and large going in, so that if you can see the point before night, you may safely run in, nothing to hurt you but the shore itself; the easternmost point going in is called Smutty-nose point, and the westernmost Gorlob point, between which is the entrance, which is almost 2 miles broad, and has about 20 fathoms water; and as you sail in, it grows narrower and shoaler, lying in first W. S. W. after runs up to the westward in a bite, where you lie landlocked and above half a mile broad, so that you may turn in or out, and anchor in what depth you please, from 12, 10, 8, 6, 5 or 4 fathoms, very good ground. From New Perlican it is about 5 leagues over to Random-head, and they lie nearest N. W. and S. E. one from the other. In the river or bay of Random are several arms and harbours, for Random and Smith's sound come all into one, but it is 9 or 10 leagues under the head of each where they meet, and there is a little island at the head, where is 4 and 5 fathoms: only at the island going through you have not above 12 feet water, and it is not a mile broad there. Smith's sound runs in W. S. W. about 15 leagues from Bonaventure to Tickle harbour, the bottom of Trinity bay; but there is a bay, called Bay Bulls, which runs in 3 or 4 leagues, and is not over, from thence to Placentia bay, (the back or west side of the land) about two miles; and the islands of Placentia bay are about 9 or 10 leagues long each, and 5 broad, on which are many deer; they lie N. W. and S. E.

From Bonaventure to Ireland's eye is S. W. 2 or 2½ leagues.

From Bonaventure head to Bonaventure, the course is N. W. half a point westerly, about 2 miles, or more; but being got a mile from the head, then the harbour lies N. W. by N. about a mile to the Admiral's stage. The port Bonaventure lies within two small islands between which you sail in, but you may go on either side of the island, between that and the main, if you have a leading wind no danger, and have 4 or 5 fathoms at least, and run within the said islands, and anchor in that depth, in good ground. You have there a very secure place for boats in bad weather, running in within a point behind, or to the northward of the Admiral's stages, like a great pond, leaving the planter's house on the larboard side; this place will contain above 100 boats in security.

There is an island which lies off the west point of the harbour, called Gull island, off which they used to fish; from the said island the harbour lies in N. about a mile. There are several islands which are without, off Bonaventure, the one is from the port S. S. W. 5 or 6 miles, called Green island, which is a pretty large island, and you see it as soon as you come out of Trinity harbour, in fair weather; another island lies S. W. by S. 3 miles, and another island without that, about 4 or 5 miles from Bonaventure: the course is S. W. by S.

From Bonaventure-head to the Horsechops is E. N. E. 3½ leagues.

From Bonaventure-head to Trinity harbour, is N. E. by N. about 3 leagues; between which are some bays, but not for ships to ride in, unless the wind is off the shore.

The Horsechops and Sherwick point (being the north point of Trinity harbour) lie W. N. W. and E. S. E. one from the other, 2 leagues. Between the Horsechops and Trinity harbour are two places, where ships used to fish: the one is English harbour, and is W. N. W. from the Horsechops 2 miles, and after you are about a point, tends E. N. E. again; it is a clean bay, and you ride in 4 or 5 fathoms water; a planter or two live here.

From English harbour to Salmon cove, the course is N. W. by W. westerly

about half a league; it is a place for fishing, and there is a river which runs up about 2 miles to the northward.

Without Salmon cove is a headland, called Foxes island, yet joins to the main by the neck of beach. To the northward of the said island, or headland, between it and Sherwick point, runs in a bay, called Robin Hood's; and in the said bay behind a point which lies out, small ships ride, and fish there.

From the Horsechops to Trinity harbour, the course is W. N. W. about 2 leagues. Trinity harbour is the best and largest harbour in all the land, having several arms and coves, where many hundred ships may all ride land-locked: It is a place which you may turn in or out, being bold too on either side, neither is there any danger but what you see, only going into the S. W. arm, where the Admiral's stage usually is, lies a shoal, called the Muschel bank, which shoots off from the point, within the small island, on the larboard side going in, and lies over N. W. about a third of the breadth of that arm which you must avoid: Being within that bank, which will discover itself by the colour of the water, you may edge close to the south shore, if you please, or keep your lead going, to avoid the Muschel bank, giving it a little distance; you may anchor in 14, 12 or 10 fathoms, and you may come so near to the stage on shore, as to make a stage with topmasts to your stage on shore, to lade or unlade your ship. It is a most excellent harbour; for after you are in this S. W. arm, there is another runs up W. N. W. near 2 miles, and near the head of that another runs up S. S. W. but there is a bar or ledge, at the entrance of this S. S. W. arm, but the former W. N. W. is a large place, and good anchoring for 500 sail of ships. You have besides these aforementioned arms, the main harbour, turning or lying up N. N. W. and being within the harbour's-mouth, you may ride in a cove, large and good on the starboard or east side, and land-locked in good ground, where planters live; and over against that cove, on the larboard or west side, are two other coves; the northernmost of them is called the Vice Admiral's cove, for the conveniency of curing fish; and above, or to the northward of this, is a large cove or arm, called God Almighty's cove, where there is room enough for 3 or 400 sail of ships to ride, all in clear ground, neither winds nor sea can hurt you, nor any tide, in which place ships may lay undiscovered, until you run up so far as to bring it open. Several other places there are in this excellent harbour, good clean ground, tough clay in all the arms and coves of Trinity, and have 4 and 5 fathoms water, within two boat's length, off the shore, any where, and 6, 7, 8, 9, 10, 12, and 14 fathoms, and some places more, in the middle of the arms and channels, as you please; you may turn in or out, as aforesaid, observing your tide, which rises there about 4 feet, sometimes more. For not only Sherwick point is bold, which is the northernmost, but also Salvages which is the southernmost.

From the Horsechops to the south head of Cattalina bay, is N. E. by N. and N. E. 5 leagues. About a league to the northward of the Horsechops, is Green bay which runs pretty deep in, but no place where ships use to ride or fish. Being past Green bay, there is no place or cove for boats, till you come to Ragged Harbour, or Cattalina.

From the south head of Cattalina bay to the north head, is N. N. E. 3 leagues, between which two heads is Ragged harbour and Cattalina harbour. Cattalina harbour lies from the south head N. by E. northerly about two miles.

Ragged harbour is so called, by reason of the abundance of ragged and craggy rocks, which lie before and within the harbour; there is no going into the southward, with ships, but only for boats, and that you must be well acquainted with, for there are very many rocks above and under water.

Those who intend for Ragged harbour, with a ship, must go to the northward of all the aforesaid ragged rocks or islands, that lie before it, (which make the harbour) and run so far to the northward till they bring ragged harbour open; then sail in between a round island which lies close to the main, and a great black rock, which lies off the north end of all the ragged islands; sail in till they are

about the middle of the aforesaid islands, which will be to seaward of them and anchor there. There is a river of fresh water at the head of the harbour, but no inhabitants.

Two miles to the northward of Ragged harbour, is the harbour of Cattalina, which is a very good and safe harbour, and good ground, not above 8 fathoms, from 3 to 4, 5, 6, 7 or 8 fathoms, as you please. You may, with a leading wind, sail between the small island, which is a little to the southward of the harbour, and have 4 or 5 fathoms at the least going through, but it is not above a cable's length broad; or you may go without the said island, to the eastward of it, giving the island a small birth, and so sail in with the middle of the harbour; for about a mile distance from the south point of the harbour, E. N. E. is a shoal, upon which, if there be ever so small a sea it breaks; but you may sail between the island and the shoal, or you may go to the northward of it, between the shoal and the north shore, and borrow off the north side of the main, off Little Cattalina, a bay which lies in.

Being off Little Cattalina, all the way to the harbour, you have not above 10 fathoms, and from 10 to 8 and 7 fathoms, then 8 and 9 fathoms again. It is reported there is a rock which lies about $\frac{1}{4}$ of a cable's length from the south point of the entering into the harbour, which has but 9 or 10 feet water on it; however, it is easily avoided, if any such, by keeping something nearer to the north shore, till you are shut within the said point; for all the harbour over is good sounding. Close to the shore within the harbour, you may anchor in 5 fathoms, land-locked. In the S. W. arm the harbour lies in W. S. W. or you may anchor in $3\frac{1}{2}$ fathoms within, to the southward of the little small green island, within the said harbour or run up 2 miles towards the river head, where fresh water runs down. In this harbour you may anchor in 7, 6, 5 or 4 fathoms. There is a kind of a boar rises in this place very often, that will cause the water to rise 3 feet suddenly, and then down again, and you have it 2 or 3 times in 3 or 4 hours at certain seasons. It is a very good harbour, and abundance of herb Alexander grows on that small island in the harbour. Here is store of salmon to be caught at the head of the harbour, if you have nets; and near a small cove in the W. N. W. within the small island, is a fire stone, of a glittering colour, a kind of mineral: excellent good wheel-locks growing in the rocks.

From Cattalina harbour to Little Cattalina is N. N. E. about $\frac{1}{2}$ a league; it seems to be a good sandy bay.

From Cattalina harbour to the north head of the bay, is N. E. Easterly $1\frac{1}{2}$ league.

From the north head of Cattalina bay to Flower's point, the course is N. by E. $1\frac{1}{2}$ league, off which point are sunken rocks, called Flower's rocks; the sea breaks upon them in a swelling (or great) sea, and they discover themselves plain, they lie about half a league off shore; you may go between the point of the Flower's (which has some rocks lying off it) and the said sunken rocks: you have a mark, if in the day time, to go without them, which is to keep Cape Larjan open to Bird's island, and that will carry you clear without, to the eastward of them, with any ship.

From Flower's point to Bird's island the course is N. by W. about $3\frac{1}{2}$ miles. Within the said Bird's island is a large bay, one arm within the south point of the land, which runs up W. S. W. a good distance, where ships may ride; there is another arm also runs up within some rocks, which are above water; the bay runs to Cape Larjan. Bird's island abounds with willocks, pigeons, gulls, &c. which breed there in summer.

From Bird's island to Cape Larjan, the course is north easterly, between 2 and 3 miles.

From Flower's point to Cape Larjan is N. half a point westerly; Cape Larjan is but a low point, off which lies a great rock, above water.

From Cape Larjan to Spiller's point is N. N. W. a small league; between which cape and Spiller's point runs in a pretty deep bay, over which point between that and Cape Larjan, you will see the high land of Port Bonavista, when

you are a good distance off at sea, being high land. Spillers point is indifferent high, steep up, and bold too.

From Spiller's point to Cape Bonavista, the course is N. N. W. about a league, between which is a very great and deep bay, so that men unacquainted, would judge that there went in the harbour of Bonavista. It is but a small distance of $2\frac{1}{2}$ miles over, from the bottom of the bay to Port Bonavista, by land, and is but a mere neck of land. From Red head bay to this bay is not above half a musket shot. The head of Cape Bonavista appears at a distance of a sky colour, About $\frac{1}{4}$ of a mile N. by W. from the cape is a small island, called Gull island, easy to be known, being different heights, and highest in the middle, and makes something like the form of a Fleu de Lys, or a hat with great brims; you may see it 4 or 5 leagues off, in clear weather; and N. E. about a league from Cape Bonavista, is a ledge of about 10 fathoms water on it, where boats use to fish. Cape Bonavista lies in lat. $49^{\circ} 10'$.

From Cape Bonavista, to Port Bonavista, the course is S. W. about 5 miles. If you come from the southward, and intend for Bonavista, you may sail between Gull island and the cape, they being bold too, and about $\frac{1}{4}$ of a mile asunder, but you must leave Green island on your larboard side, going to Bonavista, for between it and the main is but narrow, and some places shoal rocks, not safe for ships to pass through; but you may sail between the said Green island and the Stone island, with any ship without danger, being safe and bold; or you may go to the westward of Stone island, and run to the southward, till you open the bay or harbour of Bonavista, and are past Moses point, and so to the southward of the rocks, called the Sweeres, which are high rocks, within which you ride (for there is no passage to the northward of them) and lie in 11, 10, 9, 8, 7, 6 or 5 fathoms, as you please, and must always have a good anchor in the S. W. and another fast in the Sweeres, or anchor in the N. W. for westerly winds blow right into the road. It flows generally to the northward about Bonavista, and the places adjacent, W. N. W. that is, a W. N. W. moon makes the highest water, which most masters of ships using these parts have observed.

With small vessels you may go between Green island and the main (but not with great ships) and so to Red head; but the bay between the points (over against Green island) and Red head, is all foul ground to anchor in. A little distance, about a cable's length from the shore, is a sunken rock, but with boats you may go between the shore and it; the sea breaks on it. Being past Red head, you sail S. W. to Moses point; between which 2 points is a large bay or cove, called Baylis cove, where you may anchor on occasion. There is a stage kept generally for fishing every year, on the larboard or north side of the bay.

From the east part of the Grand Bank of Newfoundland, in the latitude $45^{\circ} 06'$ to the east part of the bank Queco, in lat. $44^{\circ} 16'$ is considered by those who have run it, 120 leagues distant. The north part of the bank Queco, in lat. $45^{\circ} 06'$ —the S. W. of Queco, in $44^{\circ} 16'$ and the Isle of Sabes, in the latitude $44^{\circ} 16'$, and about 14 leagues to the westward of bank Queco; the N. part of Queco, on a west course, is about 18 leagues in length; from the N. W. part of Queco, to the harbour of Causo, is N. W. by W. $\frac{1}{2}$ W. 39 leagues, after you have lost soundings off Queco, on which is commonly about 35 fathoms, unless on the S. E. part, where (and on a certain spot near the middle) there is but 18 fathoms after you are to the westward of Queco, and also before you have 100 and 95 fathoms black mud; there is a small narrow bank, about 2 leagues to the N. W. of the middle of Queco, but it reaches not so far to the northward as the north part of Queco; about 20 leagues W. N. W. from the N. W. point of Queco you will strike ground on Frenchman's bank, which is a narrow bank, that stretches E. S. E. and W. N. W. athwart the harbour of Causo, about 9 leagues off; you must keep your lead going when you reckon yourself nigh this bank, or else on the N. W. course you will soon be over it, being not past 3 leagues broad, and when over it you will have 100, and 95 fathoms, black mud; it is the best way to fall to the westward of Causo, because on the French coast you have no soundings, and the winds in the summer are generally S. W. and W. S. W. and very often foggy.

The ground to the westward of Causo rises very sudden, from 100, 95, 70 to 40 fathoms, hard ground; then you are not past 2 or 3 miles off the land; be careful of sailing in with Causo in foggy weather, for S. E. and E. S. E. from it lie sunken rocks, which in fair weather seldom appear at high water.

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The Courses and Distances on the coast of Newfoundland, between Cape Race and Cape Spear.

☞ These courses set by a Meridian Compass, with allowance for Variation.

	Courses.	Leagues.
From Cape Race to Cape Ballard	N. N. E.	3½ or 4
Cape Ballard to the south point of Renowes	N. N. E.	2
Cape Ballard to Renowes rock, which is high above water	N. E. ¼ Northerly	2
Cape Ballard to Ferryland-head	N. E. by N. ½ N.	5
Renowes Point to Fernowes, N. E. by N. & N. N. E. & N.	N. N. E. ½ E.	1½
Renowes to Ferryland-head	N. E. by N. ¼ N.	3½
Fernowes to Bald-head	N. N. E.	¼
Bald-head to Ferryland-head	N. E. by N. ½ Nly.	1½
Bald-head to Black-head	N.	½
Black-head to Ferryland-head	N. E. by E.	1
Black-head to Agua Fort	N. W. by N.	1½
Agua Fort to Ferryland-head, the south part of the head	East Northerly	2
Agua Fort to Crow island	E. & N. E. by E.	1½
Crow island to Ferryland-head	E. by S.	½
Ferryland-head to Cape Broyl-head	N. by E.	12¼
the east end of Buoy island to Cape Broyl-head	N. N. E.	1
Ferryland-head to the S. of Gull island, which is off Whitless bay	N. N. E.	5½
Ferryland-head to Cape Spear	N. N. E. ½ E.	11
Cape Broyl head the bay or harbour Cape Broyl lies in	W. N. W.	2½
Cape Broyl head, to the N. head of Cape Broyl harbour, or Brigus point	N. by W.	½
the said N. point of Cape Broyl harbour into Brigus, is	N. W. ¼ W.	½
Cape Broyl head to Cape Neddick	N. by E. Northerly	½
Cape Neddick to Baline-head	N. E. by N.	½
Cape Broyl to Baline-head	N. N. E. ½ Nly.	2
Baline-head to Baline, is N. W. & N. W. by W. ¼ of a mile	N. W. by W.	¼
Baline-head to Isles de Spear, the body of them	N. N. E.	½
Baline head to the S. E. end of Spear island	N. E.	½
Baline-head to the S. E. end of Goose island	E. by N.	½
Baline-head to Green island	N. E. ¼ Northerly	1½
Baline-head to Gull island	N. E. by N.	2
Baline-head to Bay Bull's head	N. E. by N.	3¼
Baline-head to the N. point of Momables bay, or S. point of Whitless bay	N. N. E. ¼ Nly.	1½
the North point of Momable's bay, or South point of Whitless bay, to Bay Bulls, South point	N. E. by N.	1
the said point of Momables to Green island	S. E.	½
the said point of Momables to the N. W. end of Gull island	N. E.	½
the said point to the South end of Gull island	E. N. E.	½
the south point of Bay Bulls to the N. point of Bay Bulls	N. E. Northerly	½
Bay Bulls to the south point of Petty harbour, the Spout between	N. E. by N.	3
the South point of Petty harbour to the North point of Petty harbour	N. N. E.	1
the North point of Petty harbour to Cape Spear	N. E. by N.	1
Cape De Spear to St. John's harbour	N. W. by N.	1½

The Courses and Distances on the Coast of Newfoundland, from Cape Spear to Bay Verds, Bacalieu, and several Ports and Headlands in the Bay of Consumption or Conception.

	Courses.	Leagues.
From Cape Spear to Cape St. Francis, N. and } N. by W. and N. W. by N. }	N. by W.	7½
— Cape Spear to St. John's	N. W. by N.	11½
— Cape Spear to Sugar loaf	N.	2 1-5
— Cape Spear to Red Head	N.	2½
— St. John's to Small Point	N. E. by N.	2½
— Small Point to Sugar Loaf	N. by E.	2½
— Sugar Loaf to Red Head	N.	2½
— Red Head to the South Point of Torbay	N. by W. ½ westerly	2½
— the south point of Torbay to the Green Cove, } or anchoring place }	W. by N.	1
— the south point of Torbay to the north point, called Flat Rock	N. E.	1
— the north point of Torbay, or Flat Rock to Red Head	N. by W.	1½
— Flat Rock to Black Head (by north)	N. by W. ½ westerly	2
— Black Head to Cape St. Francis	N. W.	12
— Cape St. Francis to Bay Verds Head	N.	8½ or 9
— Cape St. Francis to Island Bacalieu	N. by E.	9
— Cape St. Francis to Belle Isle, in the bay of Consumption	S. W. & S. W. by S.	5½
— Cape St. Francis to Green Bay, in the bay of Consumption	W. ½ N.	6½
— Cape St. Francis to Black Head, in the bay of Consumption	N. W.	6
— Cape St. Francis to the north point of Carbonera	W. ½ N.	7
— Cape St. Francis to Spaniard's Bay	W. S. W. ½ S.	9
— Cape St. Francis to Port Grove	S. W. by W.	9½ or 10
— Cape St. Francis to Holy head, which is } the bottom of Consumption Bay }	S. W. by S.	12½ or 13
— Holy Road to Harbour Main	N. W. by W.	3
— Harbour Main to Salmon Cove	N. W.	3
— Salmon Cove to Collier's Bay	N.	3
— Collier's Bay to Brigus (by north)	N. N. E.	3
— Brigus to Burnt Head (which is the south } point of Porto Grove Bay }	N. by W.	1
— Harbour Main to Burnt Head	N. ¼ E.	3½ or 4
— Burnt Head to the south part of Great Bell Isle	E. by N.	3
— Burnt Head to the north part of Great Bell Isle	N. E. by E. ¼ E.	4
— Burnt Head to Cape St. Francis	N. E. by E. northerly	10
— Burnt Head to the south point of Bay Roberts	N. by E.	1½
— Burnt Head to Cupid's Cove	W. S. W.	1
— the south point of Bay Roberts to the } north point of Bay Roberts }	N. W.	½
— the south point of Bay Roberts to the south point of Bell Isle	E. S. E. easterly	4
— the north point of Bay Roberts to the north } point of Spaniard's Bay }	N. by W. northerly	3
— Spaniard's Bay to the south point of Harbour Grace	N. N. E.	1
— the north point of Harbour Grace to Carbonera	N. by E.	1½
— Carbonera to Bay Verds, N. E. by N. and N. E.	N. E. northerly	10½
— Carbonera to Black Head (N. E. northerly)	N. E. northerly	4½
— Bay Verds to Flamborough Head	S. W. by W.	2
— Bay Verds Head to the S. W. end of Bacalieu	E. by N.	1½
— Bay Verds Head to Split point, which } is against Bacalieu Island }	E. N. E.	½

Courses and distances from Split Point, which is 1½ mile from bay Verds Head in Newfoundland, to several places in the bay of Trinity.

	Courses.	Leagues.
From Split Point to the Grates	N. N. W.	2
— the point of Grates to the N. W. or N. end of Bacalieu	E. by S.	1½
— the Grates to Break Heart Point, N. by W. and W. by N.	N. W. by W. north.	1½
— Break Heart Point to Sherwick Point, near Old Perlican	S. W. by S.	1½
— Sherwick Point is about a mile or more into the road, but } no passage for a ship to the northward of the island }	S. S. W.	½
— the Grates to the south head of Catalina Bay	N. by E.	10
— the Grates to the Horsechops	N. W. by N.	9
— the Grates to Bonaventure Harbour is N. W. by W. } ½ Westerly, and }	S. E. by E. ½ easterly	11 or 12
— the north end of Bacalieu to Catalina Harbour } N. N. W. northerly }	N. N. W. ¼ north.	13

	Courses.	Leagues.
From Sherwick Point, at Old Perlican, to the } South head at Catalina	N. a little easterly	12
—Sherwick point to the middle of the highland of Green Bay	N. by W. westerly	9½
—Sherwick point to the highlands of the Horsechops	N. N. W. northerly	9
—Sherwick to Bonaventure Head (the high land of it)	N. W. northerly	9½
—Sherwick to Salvages point	W by S.	3½
—Sherwick or old Perlican to New Perlican	W. S. W.	8
—Old Perlican to Silly Cove	W. S. W. southerly	7
—Silly Cove to Random Head	N. W.	5½ or 6
—Silly Cove to Bonaventure Head	N. by E.	9
—Bonaventure head to Bonaventure, N.W. b.W. & N.W. b.N.	N. by W.	1
—Bonaventure head to Ireland's Eye	W. S. W.	2
—Bonaventure Head to Trinity Harbour	N. N. E.	2½
—Bonaventure Head to the Horsechops	E. N. E.	3½
—the Horsechops to Sherwick Point, being the North } point of Trinity Harbour	W. by N.	2½
—the Horsechops to the south head	N. W. by N.	4
—the south head of Cattalina Bay to the northward	N. N. E.	2½
—the south head of Cattalina Bay to Cattalina Harbour	N. N. E.	1½
—the north head of Cattalina Bay to Flower's point	N. by E. northerly	1½
—the Flowers Rocks sunken are about a mile and } a half from off the shore	E.	½
—Flower's Point to Bird's Island	N. by W.	1½
—Flower's Point to Cape Larjan	N. ¼ westerly	2
—Cape Larjan to Spiller's Point	N. N. W.	1
—Cape Larjan to Cape Bonavista	N. N. W. ½ norther.	2
—Cape Bonavista to Moses Point, entering Port Bonavista	S. W.	1½
—Cape Bonavista to Gull Island	N. by W.	1½
—Cape Bonavista to Cape Freels	N. N. W.	10 or 12
—Cape Bonavista to Salvages	W. N. W.	9
—Cape Bonavista to Stone Island, over the north } end of Green Island	W.	
—Port Bonavista to Keel's Point W. 5 leagues, Salvages } lying to the northward of Keels about 3 leagues		

Depth of Water on the bank, and off the south part of the Coast of Newfoundland.

Cape Race West, and } Cape Race W. 43 leagues, and Cape Spear N. W. } 40 fathoms rough fishing ground,
Cape Spear N. W. by W. } by W. little westerly, 39 leagues, you have } small stones, sand and shells.
Renowes & Cape Spear } Renowes W. by N. 68 leagues and Cape Spear } 95 fathoms fine whitish sand with
W. N. W. Northerly 65 leagues, you have then } some black specks.
95 fathoms on the outer edge of this main bank

Places and Latitudes	Bearings of the Places	Dis.	Leags.	Fath.	Lat. of vessel	What kind of grounds.
Renowes and Cape Spear } 46° 45' } 47° 22' }	W.	44	44	46° 45'	Sand.	
Fernowes and Cape Spear } 46° 48' } 47° 22' }	W. N. W.	30	62	46° 48'	Fine white sand.	
Ferryland head } 46° 50' } Cape Spear and Bay Bulls } 47° 11' }	W. N. W. N. ly	33	63	46° 59'	Fine sand.	
Ferryland head } 46° 50' } Cape Spear } 47° 22' }	W. by northerly	31	85	46° 48'		
Ferryland head & Bay Bulls } 46° 50' } 47° 11' }	W. by N N. ly	29	80	46° 17'	Oozy ground.	
Ferryland head } 46° 50' } Cape Broyle } 46° 54' }	W. N. W. ¼ N. ly	26	55	46° 45'		
Bay Bulls and Cape Spear } 47° 11' } 47° 22' }	W. by N. N. ly	28	52	46° 30'		
Ferryland head & Bay Bulls } 46° 50' } 47° 11' }	W. by N. N. ly	24	58	46° 34'		
Ferryland head } 46° 50' } Cape Broyle } 46° 54' }	W. by N.	17	57	46° 51'		
Ferryland head & Bay Bulls } 46° 50' } 47° 11' }	W. by N.	13	58	46° 40'	Fine sand.	
Bay Bulls } 47° 11' } Cape Broyle } 46° 54' }	W. by N. N. ly	12	80	46° 42'		
Cape Broyle and Bay Bulls } 46° 54' } 47° 11' }	W. N. W.	10	85	46° 03'		
Bay Bulls } ditto } ditto } ditto }	W. S. W. W. ly	6½	95	46° 43'		
Whitless Bay & Cape Spear } 47° 08' } 47° 22' }	N. W. by W.	4½	64	47° 42'	[small stones.	
Tarbay } 47° 33' } 47° 22' }	W. by N. ¼ N. ly	65	64	47° 03'	Black sand & some	
	W. by N. N. ly	60	57	46° 14'	Rough ground.	
	W. by N. N. ly	50	50	46° 27'	Fine sand and stongs.	
	W. N. W.	55	45	46° 34'	Fine sand.	
	N. W. by W.	34	45	46° 05'		
	W. N. W.	66	64	46° 45'		
				47° 17'	Rough ground.	

The Virgins are rocks lying about 23 leagues east from Cape Race; they lie E. N. E. about 4 miles in length, and the shoalest is about 20 feet water. Sometimes the sea breaks very high upon them, which renders them very dangerous, besides a very strong current often sets about them. Ships sometimes anchor on them a fishing, in about 12 and 14 fathoms.

As to the bank of Newfoundland, there are soundings from the outer edge of the main bank to the height of the ground, where generally ships lie to catch fish, and which is about 40 leagues distant from the land, and then the soundings in along are uncertain. The bank goes quite to the land to the northward of Cape Ballard, where the bank falls more to the eastward, and the water is deeper, and so increases along to the northward. To the southward of Cape Race, and to the westward, is shoal water, 2 leagues off the shore, not above 20 or 22 fathoms; and to the westward of Cape Pine it is still shoaler, at the same distance.

The outer or false bank is about 110 or 115 leagues from the land, and is thought to be about 14 or 15 leagues broad in the middle; and from the inner edge of it to the main bank are near 30 leagues and no soundings between them. In the spring of the year many islands of ice lie between these banks, very dangerous, when foggy. The best part for fishing is from 100 to 140 miles off the shore, which is the shoalest part of the bank.

From Mistaken point to the Powles, or entering of Trepassy, is W. N. W. 5 leagues; there is a deep bay on the back side or east side of Powles, and a neck of beach, so that you see the ship's masts over it, but very dangerous to be embayed in that place, the sea commonly falling in there, and no current to help you out; therefore, if you intend for Trepassy, stand over to Cape Pine till you see the harbour open, and then bear into the harbour according as you have the wind, Cape Pine being safe and bold to sail along that side, &c.

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Directions for navigating the Bay of Placentia, on the South Coast of Newfoundland, from Cape Chapeaurouge to Cape St. Mary's.

N. B. The Bearings and Courses are true Bearings and Distances, and not by Compass, the variation of the Compass being 19° 30' W.]

CAPE St. Mary's to the east, and Cape Chapeaurouge to the west, form the entrance of Placentia Bay: They lie east and west of each other, in the latitude 46° 53' N. distant from each other 16 leagues.

Cape Chapeaurouge has already been described: From it to Sauker head, (which is a high hill, in the shape of a sugar loaf,) the course is E. N. E. distant 3 miles; between them lie the harbours of Great and Little St. Laurence, which have also been described.

From Sauker head to Small point, (which is the lowest land hereabouts,) the course is N. 63° E. 2 miles: And from Small point to Corbin head, (which is a very high bluff head,) is N. E. 2½ miles: There are many high head lands between them, which form several coves, the bottom of which may be seen in sailing along shore. The coast is clear of rocks, and 30 fathoms close to the shore, but no shelter for any thing. From Corbin head to Shalloway point, the course is N. N. E. ¼ E. 4¼ miles. Between them, and nearly on the same course, lie 2 very high round islands, called Corbin and Little Burin. Corbin island has very much the appearance of Chapeaurouge, when coming in with the land, and seen through the fog. These islands are high, and are little more than a cable's length from shore.

From Corbin head to Cat island, the course is N. E. 4 miles nearly; this is a high round island near the south end of Great Burin island.

About a mile to the northward of Corbin head, in a bight, lies Corbin harbour, which is very good for small vessels. The best anchorage is in the N. arm, at about a ¼ of a mile within the entrance, opposite a cove on the starboard side. A ¼ of a mile to the eastward of this harbour, and two cable's length from the shore, is a sunken rock, on which the sea breaks in bad weather, and has not depth sufficient at low water for a boat to go over it. Vessels bound for this harbour must avoid a shoal which lies a ¼ of a mile to the east of the south point of the entrance to the harbour, on which is only 2 fathoms water. Between the two high round islands, aforementioned, and the main, there is from 7 to 15 fath-

oms, and no danger but what may be seen: In case ships should fall in close with the land in the fog, they may occasionally sail within them, although the passage is little more than a cable's length wide.

Great Burin island lies nearly N. and S. is $2\frac{1}{2}$ miles in length, and high land: near the north end is another high island, about $\frac{1}{4}$ of a mile in length, called Pardy's island. On the main, within these islands, lie the harbours of Great and Little Burin.

Shalloway island lies N. W. $\frac{1}{2}$ W. 1 mile from Cat island, and N. E. by N. $\frac{1}{2}$ E. a $\frac{1}{4}$ of a mile from Little Burin island: the passage into Burin harbours, from the southward, is to the westward of Shalloway island, between that and the Neck point: take care to give Poor island a birth on your larboard hand: After you are within Shalloway island, you may anchor in safety between that and Great Burin island, from 12 to 18 fathoms water. The best anchorage in Great Burin harbour is in Ship cove. The course up to it, after you are within Neck point, is north about $1\frac{1}{2}$ mile, and is better than a $\frac{1}{4}$ of a mile wide; to sail up to it, keep the west shore on board, in order to avoid a sunken rock on the eastern shore at about half the way up, and about half a cable's length from the shore, directly off, is a remarkable hole in the rock on the same side, and a remarkable gully in the land, from the top to the bottom, on the western shore. There is another rock, on which is only $2\frac{1}{2}$ fathoms water; it lies better than a cable's length to the southward of Harbour point, which is a round green point, of a moderate height, joined to Great Burin island by a low narrow sandy neck.

After passing Little Burin island, 1 mile north, you come into Burin bay, which is a clear bay, about a mile broad every way, and where ships may occasionally anchor safely, being almost land-locked. The course into this bay from Little Burin island is north. All the land about this bay is very high. In it are two islands, one a low barren island, called Poor island; the other which runs to the north, is high and woody, and lies before the mouth of Burin inlet, on the other side of which vessels may pass up the ialet. A little within the entrance, on the east side, half a cable's length from the shore, is a rock covered at $\frac{1}{4}$ flood, at $1\frac{1}{4}$ mile from the entrance; near the middle is another rock, to the west of which is very good anchorage.

The S. W. entrance into Burin harbour, which is a $\frac{1}{4}$ of a mile wide, is formed by Shalloway island and the Neck point, in which there is no danger, giving a birth to Poor island on the larboard side. When in Burin bay, the course through the S. W. entrance into the harbour is E. N. E. and when past the points that form the entrance, the course is north up the harbour, which is better than a $\frac{1}{4}$ of a mile wide, and $1\frac{1}{2}$ mile long up to Ship's cove, where it is half a mile wide every way. This is the best anchorage.

There are only two dangers within Burin harbour that do not appear above water: the first is a small shoal on the starboard side, about half way up the harbour, directly off a remarkable hole in the cliff on the starboard side, going up, called the Oven, and about half a cable's length from the shore; there is also on the other side, directly opposite, a remarkable gully in the land, from the top to the bottom. The long mark to keep to the westward of this rock is not to bring Little Burin island to the eastward of Neck point. The other shoal, on which there is 8 fathoms, is very small, and lies about a cable's length S. S. W. from Harbour point.

The east passage into Burin harbour is not very safe to sail in without a commanding gale, and that between the N. N. E. and S. E. To sail into this passage, and coming from the westward, come not within 2 miles of the shore on the east side of Burin island, (because of several clusters of rocks) till you bring the north point of Pardy's island open to the northward of Iron island; then sail right in for Iron island, leaving it on your larboard side going in; then steer for the said point of Pardy's island, and that will avoid all danger. It must be observed, with the aforementioned winds there is commonly a great swell sets to the shore on the starboard side going in; therefore, in case of little winds, (which often

happens when you are past Iron island,) endeavour to borrow on Pardy's island, except the wind be from the N. E.

At the bottom of Burin bay there is an inlet, which runs inland 5 miles; there is a small woody island just before the entrance; ships may sail on either side; the east side is the widest. A little within the east head that forms the entrance, and half a cable's length from the shore, there is a sunken rock, which is dry at low water; therefore, in sailing into the inlet, keep the west shore close on board, for about a mile up; it lies north, and is about 2 cable's length wide, then N. N. W. for a mile, and is there half a mile wide with a sunken rock right in the middle; to the westward of that rock there is good room and good anchorage, from 7 to 12 and 15 fathoms water in the entrance, and in the middle, 2 miles up, is from 15 to 23 fathoms, and from thence up to the head is from 10 to 5 fathoms.

Iron island is a small high island, lying N. N. E. $\frac{1}{2}$ E. 1 league from the S. E. point of Great Burin island, and S. S. W. $\frac{1}{2}$ W. 1 mile from Mortier west head, and E. $1\frac{1}{2}$ mile from the north part of Pardy's island. Vessels bound for the harbours of Burin may pass on either side of Iron island, the only danger passing to the northward is the Brandys, which almost always break: they lie near a quarter of a mile to the southward of a low rock above water, close under the land of Mortier west head. If the wind should take you a-head after you are within Iron island, take care to keep Mortier west head open to the westward of Iron island, in order to avoid Grigory's rock, on which is only 2 fathoms water. The mark to carry you on this rock is, to bring the flag-staff on St. George's island (in the centre of the passage between Great Burin and Pardy's islands and Mortier west head) on with the west side of Iron island; this rock almost always breaks: Vessels may pass with safety between this rock and Iron island, taking care to give Iron island a birth of one cable's length.

On the main within Pardy's island, are two remarkable white marks in the rocks; the northernmost of these marks brought on with the north part of Pardy's island and Iron island, N. by E. $\frac{1}{2}$ E. will carry you on the Galloping Andrew, a shoal on which is 5 fathoms water.

S. W. 1 mile from Iron island lies a shoal on which is 3 fathoms water, called the White Horse.

Dodding rock lies about a $\frac{1}{4}$ of a mile from the eastermost part of Great Burin island.

Mortier bank lies E. by S. 2 leagues from Iron island, and N. 25° E. 5 leagues from Cape Jude: the shoal part of this bank is about 1 league over. On it you have not less than 7 fathoms water, but, by the fisherman's account, there is not more than 4 fathoms on one part of it; in bad weather, the sea breaks very high on it.

About 3 miles to the N. N. E. from Iron island is the opening of Mortier bay, at the entrance of which is a round island, called Mortier island lying a third of the distance from the west side. Ships may sail in on either side of it. It is bold, too all round. Close to the first point beyond the island, on the larboard side going in, is another little island, scarcely perceptible, as it lies close under the land; and, two cable's length from it, in a direct line towards the outer island, is a sunken rock, on which the sea breaks in bad weather; there is no other danger in this bay. At the bottom of it, $1\frac{1}{2}$ mile from Mortier island, on the east side, there is a cove, called Fox cove, wherein is good anchorage, and room for 1 ship to moor in 9 fathoms, good holding ground. They will lie two points open to the sea, that is from S. S. E. to S. E. A ground swell tumbles into the cove in bad weather, but no anchor was ever known to come home here. Fishing ships sometimes ride here the season. On the west side of the bay is the harbour, which is small and narrow, but a very good one for small vessels, where they lie moored to the shore. There is 7 and 8 fathoms through the entrance, and 2 fathoms when in the harbour, and sufficient room for 50 shallops at the head of it. Off the starboard point going in, is a rock, which at high water is always covered.

Croncy island lies N. by E. nearly 2 miles from Mortier east point. This is a round island, and lies close to the shore.

Two miles and a half from Croncy islands is the entrance into Mortier bay; at the entrance on the west side is a small harbour, called Boboy; in it is 9 feet water at low water. The course into Mortier bay is north, for about 2 miles, and is $\frac{3}{4}$ of a mile wide, in which you have from 50 to 70 fathoms water, the land on each side being high: it then runs to the westward about 2 miles, and is near 2 miles wide. In the S. W. corner of the bay is a river, which runs to the S. W. about 7 miles. On the east side, at about 3 miles from the entrance, is an exceeding good harbour, called Spanish room, in which you may anchor from 4 to 6 fathoms water, good bottom, and lie secure from all winds. There is not the least danger in sailing into this harbour, giving the low rocks above water, at the entrance on the larboard hand, a birth of one cable's length.

Two miles to the N. E. of the entrance into Mortier bay lies Rock harbour, fit only for boats, by reason of the infinite number of rocks in it, both above and under water.

From Mortier east point to John the bay point, the course is N. 25° E. distance 8 miles. Between John the bay point and Rock harbour, lie 2 sunken rocks, half a mile from the shore.

Two miles to the N. W. of John the bay point lies John the bay, in which is tolerable good anchorage, in about 8 fathoms water, with sandy bottom.

The Saddle back is a small island lying N. 47° E. 8 leagues from Corbin head, and N. 55° E. from Mortier west point, and N. 83° E. 3 leagues from John the bay point. Between it and the main are a great number of rocks and islands, which render this part of the coast very dangerous. There is a chain of rocks lying $1\frac{1}{2}$ mile to the N. E. by N. of the Saddle back.

Cape Jude is an island about $2\frac{1}{2}$ miles in length, and 2 in breadth; it lies $1\frac{1}{2}$ mile to the N. N. W. of the Saddle back; on the south end of it is a remarkable round hill, which is called the Cape. Between this island and the main are a cluster of islands and low rocks, with a great number of sunken rocks about them, called the Flat islands, the innermost of which lies about 1 mile from the main.

Audearn island lies half a mile to the northward of Cape Jude island, on the west side of which is a tolerable good harbour. Vessels bound for this harbour may pass between Cape Jude island and Audearn island, and between Crow and Patrick's island, which are two small islands, lying off the S. W. point of Audearn island. About a cable's length from Audearn island, to the southward of the harbour, is a sunken rock; the mark for avoiding it in coming from the southward is, not to haul in for the harbour till you open a remarkable green point on the south side of the harbour. The best anchorage is on the north shore, just within a small island. There is a spit of rocks stretches just off the Green point on the south shore, which are covered at high water.

Off the east point of Audearn island is a small island, called Ford's island, on the west side of which is a sunken rock about a cable's length from the island, and another on the east side, which almost always break.

Broad cove lies on the main, W. $\frac{1}{4}$ N. $5\frac{1}{2}$ miles from Ford's island; in this cove is exceeding good anchorage, in 8 or 9 fathoms water.

Cross island lies 3 miles to the N. W. of Ford's island, is about $1\frac{3}{4}$ mile in length, and one mile in breadth; is high woody land; between this island and the main are several other islands. Baue harbour lies on the main. Within these islands is an exceeding good harbour for small vessels; the passage into it is very narrow, and hath in it 2 fathoms water, but when in, there is sufficient room to moor in 3 fathoms, good bottom.

Boat harbour lies about 1 mile to the northward of Cross island, and runs up N. N. E. 1 league, with deep water to about half a mile of the head; close round the eastern point of Boat harbour lies Bay de Leau, which runs in N. N. E. $\frac{1}{4}$ E. better than a league.

Long island is about 4 miles long, and not half a mile broad, is high land

making in several pecks; the south point of it lies N. 37° E. 2 leagues from the Saddle back, and E. by S. 3 miles from Ford's island.

N. W. 2 miles from the south point of Long island, and N. E. by E. 1½ mile from Ford's Island, lies a small Green Island, which has a shoal all round near 1 cable's length.

From Green Island N. W. 2½ miles, and N. 19° E. 3 miles from Ford's island lies Great gallows harbour island, which is high land. Vessels may pass on either side of this island into great gallows harbour, which lies 1 mile to the N. E. of the island. In this harbour is exceeding good anchorage in 7 fathoms water on the starboard side, just within a low stoney point, taking care to give the point a small birth, in order to avoid a rock, which is covered at high water.

Little gallows harbour lies close round to the eastward of Great gallows harbour, and is only fit for smal. vessels, which must lie moored to the shore. Above a rock above water, on the larboard hand, Little gallows harbour island lies before the mouth of the harbour.

Cape Roger harbour lies close to the westward of Cape Roger, which is a high round barren head, lying N. 15° W. 3½ miles from the south point of Long island. There are several low rocks and islands lying off the east point of the entrance. In the harbour, 1¼ mile within the entrance, on the west side, lies a small island; to the northward of it, between that and the main, is very good anchorage in 7 or 8 fathoms water; or you may run farther up, and anchor in 6 or 7 fathoms.

One mile and a ¼ to the eastward of Cape Roger harbour lies Nonsuch; there are several islands lying in the mouth of it, and no safe anchorage till you get within all of them.

Petit fort is a very good harbour, having in it from 14 to 7 fathoms water, good bottom. The entrance into it is better than a ¼ of a mile wide, and lies N. N. E. 5 miles from the south point of Long Island, and N. by W. 2½ miles from the north point of Long island. There is not the least danger in sailing into this harbour; the best anchorage is on the starboard side, the S. E. winds heaving in a great swell on the west shore when they blow hard.

One mile to the eastward of Petit fort lies the entrance into Paradise sound, which runs up N. E. by E. 4½ leagues, and is about 1 mile broad; in it is very deep water, and no safe anchorage till you get near the head of it. Just within the entrance on the east side, is a cove (in which are several rocks above water) is 10 fathoms water, but not safe to anchor in, the bottom being rocky.

From Corbin head to Marticot island, the course is N. 48° E. 11½ leagues, nearly; this course will carry you just without the Saddle back. Between Marticot and the main is Fox island; there is a safe passage for vessels between these islands, with not less than 9 fathoms water, but no passage between Fox island and the main. On the main, within Marticot island, lie the harbours of Great and Little Paradise. The harbour of Great Paradise, is only fit for boats: The harbour of Little Paradise lies one mile to the northward of the east point of Marticot island; the only safe anchorage is in a cove, at the head, on the larboard side; here they lie moored to the shore, and are entirely land-locked.

One mile to the eastward of Little Paradise lies La Perche, in which is no safe anchorage, the ground being bad, and lies entirely exposed to the S. E. winds.

E. N. E. 2 miles from Marticot island is a rock above water, called the Black rock; a ¼ of a mile within this rock lies a sunken rock; N. N. E. ½ E. 2 miles from this rock lies Presque; in it is very deep water, but no safe passage into it, by reason of a number of rocks, both above and under water, lying before the entrance.

East 4 miles from Presque, and N. E. by E. 6 leagues from the Saddle back lies the west point of Merasheen island. This island is high, and runs to the N. E. by N. better than 6 leagues, and is very narrow, the broadest part not being more than 2 miles. At the S. part of the island, near the west end, is a very good harbour, but small, in which is from 6 to 10 fathoms water. To sail into

it, keep the starboard shore on board, in order to avoid a sunken rock that lies one cable's length off a ragged rocky point on the larboard hand going in.

Indian harbour lies on the east side of Merasheen island, at about 3 leagues from the south point; this harbour is formed by a small island, on either side of which is a safe passage into it; the only anchorage is to the westward of the island, between it and the main, and here the ground is uncertain.

N. 20° W. $2\frac{1}{2}$ miles from the west point of Merasheen island is the Little isle of Valen; this is high and round, and lies within about half a mile of the main; a $\frac{1}{4}$ of a mile from Little isle of Valen lies the Great isle of Valen, on the S. E. part of which is a small harbour.

On the main, within the Great Isle of Valen lies Clatise harbour; the entrance into it is about half a mile wide: in it is 40 or 50 fathoms water. The best anchorage is in the west cove, which is a mile long, but not a $\frac{1}{2}$ of a mile broad; in it is from 17 to 20 fathoms water, good bottom.

Grummer's rocks are low rocks above water, and lie $1\frac{1}{2}$ mile from the north end of Great isle of Valen.

Little sandy harbour lies on the main, and is a tolerable good harbour; in it you have 6 and 7 fathoms water, good bottom; in the mouth of which is a low rock above water. Vessels bound for the harbour must pass to the northward of this rock. This harbour may be known by the island called Bell island which lies E. S. E. $\frac{1}{2}$ E. $1\frac{1}{2}$ mile from the mouth of it, and N. by E. $\frac{1}{4}$ E. 13 miles from the west point of Merasheen island; off the south point of the island is a remarkable rock, resembling a bell with the bottom upwards.

Great sandy harbour lies $\frac{3}{4}$ of a mile to the northward of Little sandy harbour; the passage into it is narrow, but in it you have 6 or 7 fathoms water. There are two arms in this harbour, one running to the S. W. which almost dries at low water; the other runs to the N. E. in which is tolerable good anchorage. There are several low rocks and islands lying before this harbour.

Barren island is about $3\frac{1}{2}$ miles long, and 1 mile broad, is high land and lies better than one league from the north part of Merasheen island, and about half a mile from the main. On the east side of this island, near the south end, is a cove in which is tolerable good anchorage, from 10 to 16 fathoms water. Along the west side of this island, between it and the main, is very good anchorage.

On the main, opposite the north end of Barren island lies La Plant, a harbour only fit for boats.

From Barren island are a string of islands quite to Piper's hole, which lies 3 leagues from the north part of Barren island. These islands are about half a mile from the main, having from 17 to 7 fathoms water, good anchorage all the way to Piper's hole.

Cape St. Mary's is the east point of the entrance into Placentia bay, and lies in the lat. of $46^{\circ} 52'$ N. is a pretty high bluff point, and looks much like Cape St. Vincent on the coast of Portugal; a little to the northward of the cape is a small cove, where fishing shallows shelter from the easterly and southerly winds. The land from Cape St. Mary's to Placentia is pretty high and even. S. by W. $7\frac{1}{2}$ miles from the Cape lie St. Mary's keys, which are two rocks just above water, and on which the sea almost always breaks,

From the Virgin rocks to Cape St. Mary's, the course is south, distance $3\frac{1}{2}$ leagues; between Green point and Cape St. Mary's there is no shelter for ships or vessels. The land from Placentia road to Cape St. Mary's is of a moderate, and appears nearly of an equal height all the way; but over Placentia, and to the northward of it, the land is very high and uneven, with many peaked hills.

Bull and Cow rocks are a cluster of rocks above water, lying S. E. by E. 2 leagues from Cape St. Mary's, about 1 mile from the main, and S. W. by W. from Point Lance, which is a low ragged point, and is the west point of the entrance into St. Mary's bay; at about $\frac{2}{3}$ of the distance from the main to the Bull and Cow rocks is a sunken rock, which shews above water at $\frac{1}{2}$ ebb.

From Cape St. Mary's to Point Breme the course is N. by W. $\frac{1}{2}$ W. 8 miles.

From Point Breme to the Virgin rocks, the course is N. N. E. distance 10 miles; these rocks show above water, and lie about 1 mile from the main.

Three leagues south from Green point, and a league from the shore, lie the Virgin rocks, which are a cluster of rocks above water. A little to the southward of these rocks there are some whitish cliffs in the land, by which that part of the coast may be known, on coming in with it in thick weather.

From Virgin rocks to Point Verd, the course is N. 38° E. distance 5½ miles. This is a low green point, and is the south point of the entrance into the Road of Placentia

Placentia road and harbour is situated on the east side of the great bay of that name, at 11 leagues distance from Cape St. Mary's. To sail into the road, and coming from the southward, you must keep a league from the shore to avoid the Gibraltar rock, which lies W. S. W. from Point Verd, till you bring the Castle-hill open to the northward of Green point. The Castle hill is on the north side of the road on which stands the castle, and is distinguishable far out at sea. Green point is a low level point, which forms the south side of the road. The Gibraltar rock has 16 feet water upon it, and lies W. ½ S. distant 2¼ miles from Green point, and 2 miles from shore. The mark afore-mentioned will carry you ¼ of a mile without it, and when you have the said mark open, you may steer in for the Castle, keeping your lead going; there is regular sound on both sides. Along the south side is a flat, to which you may borrow into 4 fathoms. The best anchorage is in 6 or 7 fathoms water, under the Castle-hill at ¾ of the distance over from that side, where you lie in good ground, and open about 4 points to the sea. At the bottom of the road is a long beach, which terminates to the north in a point, on which stand the inhabitants' houses and a fort. Between this point and Castle-hill is the entrance into Placentia harbour, which is very narrow, in which is 3½ fathoms water, but within the narrows it widens to ½ of a mile broad, and runs up N. N. E. above 1½ mile, where ships may lie in perfect security, in 6 or 7 fathoms. To sail in you must keep nearest to the starboard side.

Near the bottom of Placentia road, on the north shore, at the top of a hill, stands a castle; when you have this castle open to the northward of Point Verd, you may haul in for the road in safety, taking care to give Point Verd a birth of near 2 cable's length. The best anchorage in the road is under the Castle-hill, in about 6 fathoms water. The entrance into the harbour is very narrow; in it you have 3½ fathoms water; after you are within the narrows it is about ½ of a mile broad, and about 1½ mile long; here you may anchor in perfect safety, in 6 or 7 fathoms water.

The coast is easily known in clear weather, by the Chapeaurouge, and other remarkable head lands. The best directions that can be given in coming in with it in thick weather, are, to observe, that between Burin and Laun, there are no islands except Ferryland head, which is very near the main, so as not to be distinguished as an island till very close to the shore; also that the islands about Burin are large and full as high as the main land; those about Laun are small, and scarce half the height of the main land, and the Lamelins are 2 low flat islands. There are several small rocks just above water between Laun and Lameline, and there are none such any where else along the coast. The land from Mortier head up the bay, is high, rocky, and uneven, with several islands near the coast, which form many capes and ragged points.

From Mortier head to Red island, the course is N. E. by E. distance 16 leagues. This island is high, and may be seen in clear weather, 12 leagues from the decks. The south end of it bears from Placentia road N. W. distance 4½ leagues.

Red island is high barren land, about 5 miles long and 3 miles broad. The south point lies N. W. 11 miles from Placentia road. On the east side near the north end is a small harbour, which is only fit for shallops.

Point Latina lies about 5 miles to the northward of Placentia road; between these places the land is low and even near the sea, but just within it high and ragged; there are several sunken rocks lying along the shore about ½ a mile off.

Point Roche lies more than a mile to the eastward of Point Latina; there is a shoal stretches off Point Roche more than $\frac{1}{4}$ of a mile.

S. E. by S. $\frac{1}{2}$ E. $1\frac{1}{4}$ mile from Point Roche is the entrance into the harbour of Little Placentia, which runs up S. W. by W. $\frac{1}{2}$ W. about $1\frac{1}{2}$ mile, and is near $\frac{1}{2}$ a mile broad; there is exceeding good anchorage in this harbour, in a cove on the north shore; this cove may be known by the west point being woody, and the land to the eastward being barren; off the east point of the cove lies a shoal for near $\frac{2}{3}$ the distance over to the south side of the harbour; in this cove is 7 and 8 fathoms water.

From Point Latina to Ship harbour, the course is E. N. E. distance $5\frac{1}{2}$ miles. This harbour runs up north $2\frac{3}{4}$ miles, and is about $\frac{1}{4}$ of a mile broad; the best anchorage is in a cove on the west side in about 10 fathoms water, at about 1 mile from the entrance.

Fox island is a small round island, lying N. by E. $\frac{1}{2}$ E. 3 miles from Point Latina, and W. by N. 1 league from Ship harbour point, which is a low stony point, lying about $1\frac{1}{2}$ mile to the westward of Ship harbour; between Fox island and this point are a range of rocks, which in bad weather break almost quite across.

N. W. $1\frac{1}{2}$ miles from Fox island, is a steep rock above water, called Fishing rock; north $1\frac{1}{2}$ miles from Fishing rock lies a sunken rock, which almost always breaks.

The Ram islands are a cluster of high islands, lying about 3 miles to the N. N. E. $\frac{1}{2}$ E. of Fox island. E. N. E. 3 miles from the south point of Ram islands is the entrance into Long harbour; there is not the least danger in sailing into it; the best anchorage is on the north side to the eastward of Harbour island, between it and the main; here you will lie secure from all winds in 7 or 8 fathoms water.

From Ram islands to Little harbour is north about 5 leagues; there are several low islands and rocks along shore; between these places there is not the best shelter for vessels, or scarcely for boats, along that coast. Little harbour is small, with 7 fathoms water; the ground is bad, and lies entirely exposed to the S. W. winds, which heave in a very great sea.

From Point Latina to the south point of Long island, the course is N. by W. $\frac{1}{2}$ W. $4\frac{1}{2}$ leagues; this island is near 3 leagues long, is high land, the south point being remarkable high steep rocks. On the east side of the island, about 1 league from the south point, lies Harbour Buffet, a tolerable good harbour; the entrance into it is narrow, but has 13 fathoms water in it. There are 2 arms in this harbour, one running to the westward, the other to the northward; the best anchorage is in the north arm, in about 15 fathoms water. This harbour may be known by the islands that lie in the mouth and to the southward of it, and by Harbour Buffet island, that lies E. N. E. $\frac{1}{2}$ E. 1 mile from the entrance. To sail into it you must pass to the northward of the islands in the mouth.

About 4 miles from the south point of Long island, on the west side, lies Muscle harbour; vessels bound for this harbour may pass between Long island and Barren island, which is a high barren island about a mile long, and about $\frac{1}{2}$ of a mile from Long island. The entrance into the harbour lies opposite the north end of Barren island, and is between a low green point on your starboard hand, and a small island on your larboard hand; this harbour is near 2 miles long, and 1 broad; in it is from 10 to 22 fathoms water, rocky bottom.

Little south harbour lies 1 mile to the westward of Little harbour; before the mouth of it are several rocky islands: In sailing into the harbour you must leave all the islands on your starboard hand, except one, on either side of which is a safe passage of 15 fathoms water. On the east shore, within the islands, is a sunken rock, about one cable's length from the shore, which generally breaks: Nearly opposite, on the west shore, are some rocks, about half a cable's length from the shore, that shew at one third ebb. This harbour is about $1\frac{1}{2}$ mile long near half a mile wide, with 7 fathoms water, good bottom.

Great South harbour lies about 1 mile to the northward of Little South har-

hour; there is no danger in sailing in to it; near the head is very good anchorage in 6 or 7 fathoms water.

One mile to the westward of Great South harbour is Isle au Bourdeaux, a high round island near the main.

The entrance in Come-by-chance lies north 4 miles from Isle au Bourdeaux, and runs up N. E. by N. 3 miles; in it is from 20 to 3 fathoms water, sandy bottom; is entirely exposed to the S. W. winds, which heave in a very great swell.

North harbour is N. W. $2\frac{1}{2}$ miles from Come-by-chance, and S. E. by E. $2\frac{1}{2}$ miles from Piper's hole; about 2 miles from the entrance is good anchorage in 7 fathoms water, and no danger sailing into it.



*Directions for Navigating part of the Coast of Newfoundland,
from Cape St. Mary's to Cape Spear, including St. Mary's
and Trepassy Bay.*

N. B. All Bearings and Courses hereafter mentioned, are the true Bearings and Courses, and not by Compass.

THE entrance of St. Mary's Bay is formed by Cape Lance on the west, and Cape Pine on the east side. The land from point Lance lies E. by N. $\frac{1}{2}$ N. 3 leagues, to a high bluff cape, from which the land along the west side of the bay lies N. E. by N. and S. W. by S. 10 leagues up to the head of the bay. From the aforementioned bluff cape, to Cape English, on the east shore, the course is S. E. $\frac{1}{2}$ E. distance 5 leagues.

Cape St. Mary's is a very high bluff point, makes, in all directions, much like Cape St. Vincent on the coast of Portugal, and the land along shore from it, for a considerable distance, appears even, and nearly of equal height with the cape itself, which lies due west, distance between 17 or 18 leagues from Cape Chepeaurouge, and is in the latitude $46^{\circ} 52' N.$ A little to the northward of this cape is a small cove, where fishing shallows shelter with southerly and easterly winds.

From Cape St. Mary's S. E. by E. distance $5\frac{1}{2}$ miles, lie the Bull and Cow rocks, which are two flat rocks, and very near together, with several smaller rocks about them, all above water; they may be seen 4 leagues from the deck when open from the land, but when shut on with the land, they are not distinguishable so far. They bear west, distant 3 miles from Point Lance, which is a low ragged point which forms the entrance on the west side of St. Mary's bay. The Bull and Cow lie 1 mile from the nearest part of the main land; at $\frac{2}{3}$ of the distance from them to the main, is a small rock that appears above water at half tide; there is 10 fathoms between this rock and the main, and 15 fathoms between it and the Bull and Cow. Ships may safely pass within the Bull and Cow occasionally.

St. Mary's rocks lie S. by W. distant $7\frac{1}{2}$ miles from Cape St. Mary's, and S. W. by W. from Point Lance, and S. W. $\frac{1}{4}$ W. from the Bull and Cow. These are two rocks which appear just above water, upon which the sea almost always breaks very high. They lie S. E. and N. W. from each other, distance about 3 cable's length; in the middle, between them, is a channel of a cable's length broad, in which is 15 fathoms water; there is also 15 fathoms at a cable's length all round them, except to the S. E. at two cable's length; distance is 6 fathoms. Between these rocks, and cape St. Mary's, is 25 and 30 fathoms water, and all about Cape St. Mary's, at 2 and 3 leagues distance, is the same depth of water.

Point Lance is a low point near the sea, but the land within it is high, and is

the west point of the entrance into the bay of St. Mary's. It lies in latitude of $46^{\circ} 50' N.$

From Point Lance to the eastern head of St. Shot's (the east point of the entrance into St. Mary's bay) the course is S. E. by E. $\frac{1}{2}$ E. distant 22 miles. This bay runs $9\frac{1}{2}$ leagues to the N. E. with several very good harbours in it, the land on each side being moderately high, and mostly barren.

From the eastern head of St. Shot's to the western head the course is N. 41° W. distance 2 miles: This bay is entirely open to the sea, and about 1 mile deep.

From the western head of St. Shot's to Gull island the course is N. 20° W. distant 4 miles. This island is small, of the same height with the main land, and so near it that it cannot be distinguished, unless you are close in shore.

From Gull island to Cape English the course is N. 7° W. distance 2 leagues; This cape is high table land, terminating in a low rocky point, forming a bay about a mile deep to the southward of it; at the bottom of this bay is a low stony beach within which is a pond, called Holy Rood Pond, running to the N. E. for about 7 leagues, and is from half a mile to 2 or 3 broad; this pond makes Cape English appear from the southward like an island.

From Cape English to False Cape the course is N. 20° E. 1 mile.

From Cape English to Point le Haye, the course is N. E. 3 leagues. This is a low point off from which there runs a ridge of rocks of $\frac{3}{4}$ of a mile to the sea, and above a mile along shore, on which the sea breaks in bad weather. This is the only danger in all St. Mary's bay that will take a ship up.

From Point le Haye to the south point of the entrance into St. Mary's harbour (called Double road point) the course is N. E. distance $1\frac{1}{2}$ mile; the land between these points is low and barren.

From Point le Haye to the low point on the starboard side going into St. Mary's harbour, called Ellis' Point, the course is N. E. by E. 2 miles, and from Point Lance to St. Mary's harbour, is E. $\frac{3}{4}$ N. distance 9 leagues. The entrance to this harbour is above a mile wide. Within the points that form the entrance, it divides into two branches, one to the E. S. E. the other to the N. E. When you are past Ellis' point, haul in to the southward, and anchor abreast of the fishing stages and houses, upon a flat, in 4 or 5 fathoms. Here you will lie land-locked. This flat runs off about half a mile from the shore, without it is from 15 to 40 fathoms water over to the other side; but the best anchorage in this harbour is about 2 miles above the town, where it is above half a mile wide, opposite Brown's pond, which is on the starboard side, and may be seen over the low beach; here you will lie land-locked in 12 fathoms, and excellent ground all the way up to the head of the harbour. One mile above the said point on the opposite shore, is a beach point, close to which is 4 fathoms, where ships may heave down; and here is plenty of wood and water. The N. E. arm of St. Mary's harbour runs up 2 miles from the entrance; about half way up it is a mile broad, and above that it is half a mile broad, where ships may anchor, but being open to the sea, this place is not resorted to by ships.

Two leagues above St. Mary's harbour, lie two islands, the largest of which is about 2 leagues long. There is a good passage for ships between those islands, also between them and each shore. The passage on the west side is $2\frac{1}{2}$ leagues wide. Above those islands, are many good anchoring places on each shore, and at the head of the bay is a fresh water river, which is navigable 2 or 3 leagues up.

Mall bay lies to the westward of North East point, and is about 1 mile broad and better than 2 miles deep. There is no good anchorage in this bay, being open to the sea, and generally a heavy swell setting into it: Vessels may occasionally anchor near the head in 5 or 6 fathoms water good ground.

From Cape English to the south part of Great Colinet Island, the course is N. 10° W. distance 3 leagues. This island is of a moderate height, about 1 league long, and 1 mile broad. On either side of this island is a safe passage up the

bay, taking care to give Shoal bay point a birth of a $\frac{1}{4}$ of a mile, there being several sunken rocks lying off this point.

Shoal bay point lies 1 mile distant off the east side of Great Colinet Island. On the north side of Great Colinet Island, is a stony beach, from off which lies a bank for about $\frac{1}{4}$ of a mile, on which is from 7 to 17 fathoms water, rocky bottom.

Little Colinet island lies $1\frac{1}{2}$ mile from Great Colinet island, is about 1 mile long, and $\frac{1}{2}$ a mile broad.

The entrance into Great Salmon river lies N. 50° E. distance 2 leagues from the north point of Little Colinet island, is about $\frac{3}{4}$ of a mile broad, and runs to the N. E. 7 or 8 miles; in it is very good anchorage; the best is about 3 miles from the entrance on the north side, in a sandy cove, in 5 or 6 fathoms water.

North harbour lies N. by W. $\frac{1}{4}$ of a mile from the north part of Little Colinet island, is about a mile broad at the entrance, and runs to the northward about 3 miles; in it is very good anchorage, in about 6 or 7 fathoms water, at about 2 miles from the entrance, where it is not above half a mile wide; or you may run up the narrows, which are formed by two low sandy points, about $\frac{1}{2}$ a cable's length asunder, taking care to keep the starboard point close on board, and anchor close within the point, on the starboard shore.

Colinet bay lies N. N. E. $\frac{1}{2}$ E. $5\frac{1}{2}$ miles from the north part of Little Colinet island; in it is very good anchorage from 5 to 12 fathoms water.

From the eastern head of St. Shot's the land to the eastward tends away E. by S. $\frac{1}{4}$ S. for about 1 mile, then E. $\frac{1}{4}$ S. 1 mile to Cape Freels.

From Cape Freels to Cape Pine, the course is E. N. E. $1\frac{1}{2}$ mile. The land about Cape Pine, to the eastward and westward, is moderately high and barren.

From Cape Pine to Mistaken point, the course is E. $\frac{1}{4}$ N. distance $4\frac{1}{2}$ leagues. Between these points lies Trepassey bay, in which is Trepassey harbour.

The entrance of Trepassey harbour lies 2 miles to the N. E. of Cape Pine, is about $\frac{3}{4}$ of a mile wide, and runs nearly the same breadth for about $2\frac{1}{2}$ miles and is here little more than a $\frac{1}{2}$ of a mile wide, but afterwards increases to $\frac{3}{4}$ of a mile wide; here vessels generally ride. The dangers in sailing into this harbour are a small rock that lies on the east shore, about a mile within the entrance and is about $\frac{1}{4}$ of a cable's length from the shore; and on the west shore, within the harbour, off a stony beach, lies a shoal, and runs along shore, up the harbour, to a low green point. Baker's point, on with a low rocky point in the entrance of the harbour, will carry you clear of this shoal. When you are nearly up with the low green point, you may borrow more to the westward, and anchor either in the N. W. or N. E. arm, where you will be very handy for wooding and watering.

From the Powles, (the east point of the entrance into Trepassey harbour) to Cape Mutton, the course is E. $\frac{1}{4}$ N. distance 1 mile. Between these points lies Mutton bay, and is about 2 miles deep; in it is from 12 to 3 fathoms water, rocky bottom. The N. W. part of the head of this bay is separated from the harbour of Trepassey by a low, narrow, stony beach, over which may be seen the vessels in the harbour.

Biscay bay lies about $1\frac{1}{2}$ mile to the eastward of Mutton bay, the entrance of which is about 1 mile wide, and about 2 miles deep; in it is from 9 to 3 fathoms water, sandy bottom, but is quite open to the sea.

From Mistaken Point to French Mistaken Point, the course is N. 80° W. distance 2 miles.

From French Mistaken point to the Powles, the course is W. N. W. distance 8 miles.

The land from Mistaken point to the eastward tends away E. N. E. 1 league, then N. E. by E. $1\frac{1}{2}$ mile to Cape Race, which is table land, of a moderate height, having a high black rock lying close off the cape, with several small low rocks to the northward of it. This cape lies in the latitude of $46^{\circ} 42' N.$

From Cape Race to Cape Ballard, the course is N. E. by N. distance 3 leagues; nearly 1 mile to the southward of Cape Ballard, lies a high black head, called

Chain cove head. Between these points is a cove, and to the westward of Chain cove head lies Chain cove, before which lies a black rock above water.

Due east from Cape Race, and S. by E. $\frac{1}{4}$ E. from Cape Ballard, lies a fishing bank, called New bank, about 5 miles long, and nearly 2 miles broad; on it is from 9 to 25 fathoms water.

From Cape Ballard to Renowe's rocks, the course is N. 20° E. distance 2 leagues. These rocks are small, of a moderate height, and lie 1 mile from the main land, and are bold too.

From Renowe's rocks to the harbour of Renowe, the course is N. by W. $\frac{1}{2}$ W. distance $2\frac{1}{2}$ miles. This is but a small harbour, and hath not above 15 or 16 feet at low water; it is but an indifferent harbour, having several rocks in the entrance, and the S. E. winds heave in a very great sea. To sail into it, you must keep the north shore on board.

Fermouse harbour lies about $3\frac{1}{2}$ miles from Renowe's; between these harbours lies Bear's cove, off which lies a sunken rock, about a cable's length from shore. Fermouse harbour is an exceeding good harbour, there being no danger in sailing into it. The entrance is not more than a cable's length wide: just within the entrance, on the north shore, is a small cove in which a fishery is carried on but no safe place for anchoring. About a $\frac{1}{4}$ of a mile farther in, on the same side, lies another cove, called Admiral's cove; in this cove the merchant's ships generally ride, in 7 or 8 fathoms water, land locked. About 1 mile farther up the harbour is a cove, called Vice-Admiral's cove. On the south side is the best anchorage for large ships, in 12 or 15 fathoms water, muddy ground; here you will be handy for wooding and watering. Farther up on the same side lies a cove, called Sheep's head cove. Directly off this cove, near the middle of the passage up the harbour, lies a shoal, on which is only 9 feet water. This is the only danger in this harbour.

Bald head lies N. 30° E. 1 mile nearly from Fermouse harbour.

From Bald head to Black head, the course is N. by W. 1 mile.

From Black head to the entrance into the harbour of Aqua fort, the course is N. W. by N. 1 mile nearly; in the entrance is a high rock above water. The passage into the harbour is to the northward of this rock in which you have 15 fathoms water. This harbour lies in west about 3 miles; at about $2\frac{1}{2}$ miles from the entrance it is very narrow, where you have 4 fathoms water; but just within the narrows, on the north shore, is a small cove, in which you will have 7 fathoms water; this is a good place for vessels to heave down, the shore being steep. To sail up through the narrows, take care to give the stony beach on the north shore, without the narrows, a berth, it being a shoal along that beach, except at the point of the narrows, which is bold too.

Ferryland head lies E. N. E. $\frac{1}{2}$ E. distant 2 miles from Aqua fort, and N. 30° E. distant $3\frac{1}{2}$ miles from Fermouse. Ferryland head is moderately high having 2 high rocks above water lying close off the head, called the Hare's ears. This head is not easily distinguished by reason of the main land within it being much higher. The entrance into Ferryland harbour lies to the northward of Ferryland head, between it and Isle Bois, and is little more than half a cable's length wide; but after you are within Isle Bois, it is better than a $\frac{1}{4}$ of a mile wide, and tolerable good anchorage, in 8 or 10 fathoms water; but the N. E. winds heave in a very great sea over the low rocks that run from Isle Bois to the main.

From Isle Bois to Goose island the course is N. $\frac{1}{2}$ E. distant $\frac{1}{2}$ a mile; and from Goose island to Stone island, the course is N. 5° W. distant $\frac{1}{2}$ a mile.

Capiin bay runs in N. W. by W. distant $2\frac{1}{2}$ miles from Goose island, is a tolerable good bay, with a safe passage into it on either side of Goose island. To the northward of Goose island, between it and Stone islands, there is not the least danger, the island being bold too. If you pass to the southward of Goose island, between it and Isle Bois, be sure to keep the point of Ferryland head open to the eastward of Isle Bois, in order to avoid a sunken rock, on which is only 2 fathoms water, and lies nearly midway between Goose island, and Cold East point; after you are within this rock, there is not the least danger in sailing up the bay.

The best anchorage is abreast of a cove on the larboard hand, about $\frac{1}{2}$ a mile within Scogin's head, in 16 or 17 fathoms water.

From the Hare's ears off Ferryland head, to Cape Broyle, the course is N. $\frac{1}{4}$ W. distant $2\frac{1}{2}$ miles. This cape is high table land, and makes in a saddle, either coming from the northward or southward. From the north part of the cape, E. S. E. $\frac{1}{4}$ of a mile, lies a small rock, called Old Harry, on which is only 3 fathoms water; but between it and the main is upwards of 20 fathoms water. About $\frac{1}{4}$ of a mile to the N. E. of the north part of Cape Broyle lies a ledge of rocks, called Horse rocks, on which you have from 7 to 14 fathoms water. In bad weather the sea breaks very high on these rocks. The mark for these rocks is a white house on Ferryland downs, open with Stone islands, and the head of Cape Broyle harbour open will carry you on them.

From the north part of Cape Broyle to the south part of Brigus head, the course is N. W. by N. distance $1\frac{1}{2}$ mile. These points form the entrance into Cape Broyle harbour, which runs $3\frac{1}{4}$ miles up. About $1\frac{1}{4}$ mile within the entrance on the north shore, is a cove, called Admiral's cove, in which you may anchor in about 12 fathoms water good ground; but here you will lie open to the south east. The best anchorage is above the narrows, in about 7 fathoms water. The only danger in sailing up the harbour is a ledge, called Saturday's ledge, and lies about $1\frac{1}{2}$ cables' length without the narrows, on the north shore; if you are coming in from the northward, keep the saddle on Brigus head open with the point of Admiral's cove, it will carry you clear off this ledge. After you are above the narrows, you may anchor in about 7 fathoms water, good ground. Here you will be very handy for wooding and watering.

Brigus by south is a small harbour, only fit for boats, and lies close to the northward of Brigus head.

Cape Neddick lies N. 5 miles from Cape Broyle, and N. 2° W. distance $7\frac{1}{2}$ miles from the Hare's ears off Ferryland. This cape is table land, of a moderate height, and steep towards the sea.

From Cape Neddick to Baline head the course is N. 15° E. distance $1\frac{1}{2}$ mile. Baline cove is about a $\frac{1}{4}$ of a mile to the northward of Baline head. This is but a small cove, fit only for boats.

From Cape Neddick to the outer point of Great island, the course is N. 40° E. distance $2\frac{1}{2}$ miles. This island is about $\frac{1}{2}$ a mile in length, and of a moderate height.

From Baline head to Isle Spear, the course is N. $\frac{1}{2}$ E. distance 1 mile. Nearly within this island a fishery is carried on, but no safe anchorage, the bottom being rocky.

Toad's cove is a small cove, about 1 mile to the northward of Isle Spear, and is only fit for boats.

About $1\frac{1}{2}$ mile from Isle Spear, lies the south point of Momable's bay; from this point to the north point of the said bay, being the south point of Whittless bay, the course is N. E. by E. distance $1\frac{1}{2}$ mile. Momable's bay is an open bay, about one mile deep.

Green island is a small round island, about $\frac{1}{4}$ of a mile from the south point of Whittless bay. From this point lies a ledge of rocks, about $\frac{1}{3}$ of the distance over to Green island.

The south point of Gull island lies about $\frac{1}{4}$ of a mile to the northward of Green island, and is about 1 mile long, and a $\frac{1}{4}$ of a mile broad, and is pretty high land.

Whittless bay runs in about 2 miles from Gull island. In it is a moderate depth of water, good ground but open to the sea. About half way up on the north shore, lies a ledge of rocks; part of these rocks shew above water at about half tide.

One mile and a half to the northward of Gull island lies the south point of the entrance into the bay of Bulls: from this point to the north point of said bay, called Bull head, the course is N. E. $\frac{1}{2}$ E. distance 1 mile. The best anchorage in this bay for large vessels is about a $\frac{1}{2}$ a mile from the head in about 14 fathoms water; but small vessels may anchor higher up, and moor to the north shore,

and will then lie land-locked. The only dangers in this harbour are, a small rock off Bread and Cheese point, but is not above 20 yards off, and a rock on which is 9 feet water lying off Magotty cove, about half a cable's length off shore.

From Bull's head to the south point of Petty harbour, the course is N. N. E. distance $8\frac{1}{2}$ miles. From this point runs a ledge of rocks for about a $\frac{1}{2}$ of a mile.

From the south point of Petty harbour to the north point, the course is N. by E. $\frac{1}{2}$ E. distance $2\frac{1}{2}$ miles. Between these points lies Petty harbour bay, which runs in about 2 miles. At the bottom is a small cove, where a fishery is carried on.

From the north point of Petty harbour to Cape Spear the course is N. N. E. $\frac{2}{3}$ E. distance 2 miles. This point is rather low and ragged, and may be known by the land to the northward tending away to the W. N. W.



Sailing directions for the Gulf of St. Lawrence.

From Cape North, in the island of Cape Breton to Cape Ray, in Newfoundland, the course is E. N. E. 19 or 20 leagues.

From Cape North to the middle of the island of St. Paul, the course is E. N. E. $\frac{1}{2}$ N. distance 4 leagues.

From St. Paul's island to Cape Ray, the course is E. N. E. $\frac{1}{2}$ E. 16 leagues.

[All these bearings are by Compass and the variation 16 or 17° W.; and the Distances are found by trigonometrical calculation by several Bearings taken, &c.]

From Cape north to the Bird islands, the course is N. 9° W. 17 or 18 leagues.

From St. Paul's island to the Bird islands the course is N. 24° W. distance $15\frac{1}{2}$ leagues.

From Cape Ray to the Bird islands, the course is W. 26° N. distance 22 leagues.

From the Bird islands to the north part of Isle Brion, is W. $\frac{1}{2}$ S. 5 or 6 leagues—All the above courses are by compass.

REMARKS.

The Bird islands are but small and not far asunder; the passage between is a rocky ledge. They are of a moderate height, and white at top, the northernmost being the largest, from the east end of which runs a small ledge of rocks.

The passage between Little bird island and the isle of Brion, is about 5 leagues.

SOUNDINGS.

Body of the Island Brion, S. and S. $\frac{1}{2}$ W. 4 leagues, 35 fathoms, brown sand.

N. end of ditto, S. W. by S. 36 fathoms, same ground.

N. W. end of ditto, S. 40 fathoms, rocky with small shells.

Body of ditto, S. by E. 7 or 8 leagues, 45 fathoms, sand and stones.

From Island Brion to cape Rosiere, the course is N. W. by W. 39 leagues. Here the variation is 17°.

From Cape Rosiere to the N. W. end of Anticosti the course is N. N. W. 20 leagues. Here the variation is 17° 30'.

REMARKS.

The channel between Anticosti and the main land of Nova Scotia, is about 14 or 15 leagues, and in the middle is very deep water, sometimes no ground with 180 to 200 fathoms line. To the westward of Anticosti is a bank, the extent of which is not known.

LATITUDES.

Cape North,	-	-	-	-	47° 6' N.
St. Paul's island,	-	-	-	-	47 14
Cape Ray,	-	-	-	-	47 40
Bird island,	-	-	-	-	47 52
North part of Brion island,	-	-	-	-	47 50
Cape Gaspee,	-	-	-	-	48 44
N. W. end of Anticosti,	*	-	-	-	49 46

The islands of Mingan are 10 leagues N. E. from the island of Anticosti, in latitude 50° 15' N.

REMARKS.

The harbour of Mingan is very secure for ships in all weathers; there is good anchorage all within the Parekett and other islands, and great plenty of cod fish.

It appears to be very convenient for the cod, seal, and salmon fishery, and has the additional advantage, of a level, good soil, and profitable Indian trade. The tide flows here full and change, at 3 o'clock, and rises about 10 or 12 feet; but much of the tides depend on the weather.

The bay of Seven islands, is on the north side of the river St. Lawrence, being a very secure harbour for a number of ships in any wind. It lies in latitude $50^{\circ} 20' N.$ and lies N. from Mount Lewis, and W. N. W. 25 leagues from the N. W. end of Anticosti, by the compass.

N. E. The tide flows S. S. W. rises 13 or 19 feet Spring, and 10 at Neap tides.



Directions for sailing up the River St. Lawrence.

From the N. W. end of Anticosti to Cape Chat, the course is W. S. W. 26 or 38 leagues.

REMARKS.

From Cape Chat it is best never to stand so far northward as Mid Channel, particularly when abreast of Manicouagan shoal, where are some very strong and irregular eddies that will set you on that shoal. Several sail of men of war have been caught in them in a fresh breeze of wind, when not a single ship could answer its helm; some of them drove on board each other, and it was not without much difficulty that very great mischief was prevented by their running foul of each other, and the danger of driving on the shoals of Manicouagan.

From Cape Chat to the island of St. Barnaby, the course is W. S. W. $\frac{1}{2}$ W. distance 28 leagues.

SOUNDINGS.

N. W. end of Anticosti, E. $\frac{1}{2}$ S. 6 leagues, and the Lady's Mountains, S. W. by W. $\frac{1}{4}$ W. in 58 fathoms.

N. W. end of Anticosti, E. by S. 7 or 8 leagues, 44 fathoms.	
Mount Camille, - - - - -	S. W. by W.
Uppermost of the Lady's Mountains, - - - - -	S. E. $\frac{1}{2}$ E.
Two little paps near the shore, - - - - -	S. W. $\frac{1}{4}$ W.
About two leagues from the south shore, 93 fathoms soft mud.	
Mount Camille, - - - - -	S. W. $\frac{1}{2}$ S.
Westernmost Lady's Mountain, - - - - -	S. 50° E.
170 fathoms, soft mud.	

REMARKS.

This being the nearest to the north shore, the current was so strong, that it was with difficulty the ships were kept from driving on board one another.

About 2 leagues off the south shore, 80 fathoms soft mud.	
Mount Camille, - - - - -	S. 50° W.
Westernmost Lady's Mountain, - - - - -	S. 59° E.
Two little paps on the south shore, - - - - -	S. 20° E.
Nearest the north shore, 160 or 170 fathoms, soft black mud.	
Mount Camille, - - - - -	S. 28° W.
River Manicouagan, - - - - -	N. by W. $\frac{1}{2}$ W.
West point of ditto Low land, - - - - -	N. 65° W.

REMARKS.

A strong current here which sets towards the north shore, and is a demonstration that the south shore is most proper to keep on, as it is a clear coast, and no visible current there.

About a league from the south shore, 17 fathoms, muddy bottom.	
Mount Camille, - - - - -	S. E. $\frac{1}{4}$ E.
East part of the isle of St. Barnaby, - - - - -	S. W. by S.
Father Point, - - - - -	S.
38 fathoms, middle ground.	

ANCHORAGE.

In 17 fathoms, muddy bottom, 4 or 5 miles from the shore, the bank shoals gradually to 10 fathoms, within $2\frac{1}{2}$ miles of the shore:

Father point, - - - - -	S. S. E.
East point of the isle of St. Barnaby, - - - - -	S. W. $\frac{1}{4}$ S.
Isle Bic, - - - - -	W. by S.

The highest of Bic hills, in a line with the outer part of St. Barnaby's island, bearing W. $\frac{1}{2}$ S. $7\frac{1}{2}$ fathoms.

Ditto Mountain on the middle of the island about $\frac{1}{2}$ a mile from shore, 6 fathoms.

The outer part of Bic high land, just without the island, 5 fathoms, all soft mud.

From St Barnaby to the isle of Bic, the course by compass is W. $\frac{1}{2}$ S. distance 3 leagues; in most places 16 fathoms water.

Anchorage at Bic in 12 fathoms water.

South end of Bic island,	-	-	-	-	W. by S.
North part of ditto,	-	-	-	-	W. by N.
St. Barnaby's isle,	-	-	-	-	E. $\frac{1}{2}$ N.
Mount Camille,	-	-	-	-	E. $\frac{1}{2}$ S.
East part of Bic hills,	-	-	-	-	S.
At the upper end of Bic islands, about 2 miles from the island, in 9 fathoms water.	-	-	-	-	N. $\frac{3}{4}$ E.
Bicquet island,	-	-	-	-	N. by W.
Westernmost rock of Bicquet in sight,	-	-	-	-	N. E. $\frac{1}{4}$ E.
Rocks off the east end of Bic,	-	-	-	-	N. by E. $\frac{1}{2}$ E.

REMARKS.

Bic is a low woody island, about 4 miles from the south main land and is 3 leagues W. $\frac{1}{2}$ S. from the Isle of St. Barnaby; all the way is good anchorage in 14 and 16 fathoms water. Between Bic and the main land, is 10 and 12 fathoms. Off the S. E. end of Bic is a ledge of rocks which appear above water, and are very steep too.

To the north-westward of Bic lies a small island called Bicquet, from the west end of which lies a ledge of rocks that may be seen at least 2 miles, and perhaps they run further under water. Off the east end of this island are likewise rocks as there are to the westward of Bic; so that there can be no passage between these islands, except for boats or very small craft.

From the island of Bic to Basque the course is W. S. W. 7 leagues. Between these islands are 2 very small islands near the south shore, called the Razade islands; they are about 5 leagues from Bic and 2 leagues from Basque.

Passing to the southward of Bic, steer W. by S. in 9, 10 to 16 fathoms, when almost abreast of the Razade islands, steer W. S. W. and you will have from 20 to 22, 24 and 26 fathoms at high water, till abreast of the Isle of Basque, distance 4 miles, all sandy bottom.

REMARKS.

Although the course from Bic to Basque is W. S. W. yet if you come to the southward of Bic, (especially in little wind,) you will run on the main land by steering that course; therefore you should at first steer W. by S. until you deepen to 18 and 20 fathoms, and then W. S. W. if you are not as high as the Razade islands, for if you are, you will then be too near the shore.

ANCHORAGE.

About 4 miles off Basque island, in 26 fathoms, (high water,) a sandy bottom.	-	-	-	-	W. $\frac{3}{4}$ S.
Red island,	-	-	-	-	S. W. $\frac{1}{4}$ W.
East point of Green island,	-	-	-	-	S. W. by W.
North point of Green island,	-	-	-	-	S. S. W. $\frac{3}{4}$ W.
Middle of Apple island,	-	-	-	-	W. by N. $\frac{1}{4}$ N.
Entrance of Sagenay river,	-	-	-	-	S. by E.
Westernmost rocks between Basque and Apple islands,	-	-	-	-	S. S. E. $\frac{1}{2}$ E.
West end of Basque island,	-	-	-	-	S. E. $\frac{1}{2}$ E.
East end of Basque island,	-	-	-	-	E. $\frac{1}{2}$ S.
Western Razade island,	-	-	-	-	E. N. E. $\frac{1}{2}$ N.
High land of Bic,	-	-	-	-	

N. B. Basque island, Apple island, and the rocks between them, middle of Green island, and the outermost land in sight, (when on Apple island,) are in a line W. S. W. and E. N. E. by compass.

REMARKS.

The ebb tide runs here $4\frac{1}{2}$ knots, and much stronger near the island, as in 17 fathoms water, at the same time it runs 6 knots an hour.

Although the ebb tide is so strong here, and the tide rises much by the shore, yet the flood is scarce perceivable.

Within a cable's length of Basque island is 10 fathoms, and very near the rocks

that lie between Basque and Apple islands is 6 fathoms. These rocks are always above water.

Green island is about 3 leagues W. S. W. from the Isle of Basque; the ebb tides of Green island are exceeding strong, so that it requires a fresh gale of wind to stem it with all sails. The tide of ebb sets directly toward the island, as do the floods, (which are but little here,) towards the white island ledge; therefore great care should be taken to anchor here in time, in case it should fall calm, and you be near the island; for there is 25 fathoms almost close to the rocks, and foul ground.

REMARKS.

Off the N. E. end of Green island is a ledge of rocks about $1\frac{1}{2}$ mile in length, which partly show themselves; there is likewise a ledge of rocks off the west end of the island, which lie right out from it.

From a little below Green island, till you are near the length of Hare island, there is a constant and very strong ebb, occasioned by the great discharge of the waters from Seguenay river; and even at the east end of Hare island, the flood is not more than 4 hours continuance, and runs so weak, that if it blows but a moderate gale westerly, the ship will not tend to it: In sailing up, it is necessary to keep well to the southward of Red island, and to the westward of it, before you cross over for the east end of Hare island, to avoid getting into the stream of Red island; for should it fall little wind, the ebb tide would set you on the shoals of that island, and there is no safe anchoring to prevent driving upon them.

Red island is a low flat island, and is about $2\frac{1}{2}$ leagues N. W. by N. with the middle of Green island. There are great shoals off Red island, as yet not quite discovered. Being abreast of Green island, you will see the east end of Hare island and the Brandy pot islands, (which are 2 little islands a small distance from it,) bearing about W by S. or W. S. W. from you distance about 4 leagues from the west end of Green island to the Brandy pots.

When past Green island you should steer for the Brandy pot islands. There is likewise another small island off the N. E. end of Hare island, called White island; between these islands is a ledge of rocks that extends at least $2\frac{1}{2}$ leagues from the east end of Hare island; this ledge is dry at low water. Coming away from the upper end of Green island, and steering W. by S. you have 18 fathoms a little distance from Green island, and afterwards 16 and 14 fathoms. In passing White island, going towards Brandy pot islands, you may go to 10 or 12 fathoms, far enough from all danger, and anchor, being all good holding ground, clayey bottom.

Anchorage in 11 fathoms, clayey ground.

White island	- - - - -	N. N. W. $\frac{1}{2}$ W.
Brandy pot island	- - - - -	W. S. W. $\frac{1}{2}$ S.
East end of White island ledge in sight	- - - - -	N. by E. $\frac{1}{2}$ E.
Green island,	- - - - -	E. N. E. $\frac{1}{4}$ N.
East point of Hare island,	- - - - -	N. W. by W.
S. W. point of Hare island,	- - - - -	W. S. W. $\frac{1}{2}$ S.
Northernmost Pilgrim island,	- - - - -	S. S. W. $\frac{1}{4}$ W.
Westernmost Pilgrim island,	- - - - -	S. W. $\frac{1}{2}$ S.

The Pilgrims are high rocky islands, abreast the upper end of Hare island and are near the south main land. Between Hare island and the south shore is a long bank near the middle of the channel, which is now called the Middle bank.

REMARKS.

The true extent of this bank is not yet known; there is in some places more water than in others; in one place, at the east end of it, there is no more than 10 feet at low water.

There is likewise a bank or shoal off the S. W. end of Hare island, which extends almost to the middle bank and makes the passage very narrow, in which there is depth enough at low water for a ship of great draught.

Passing by Brandy pot islands, which have 10 fathoms very near them, and keeping along by Hare island, at about $1\frac{1}{2}$ miles distance from it, is all along re-

gular soundings, 14 and 16 fathoms, till you come to $\frac{1}{4}$ of the length of Hare island, and then coming over for the Pilgrims, you have shoal water all at once, from 7 fathoms to 6, $5\frac{1}{2}$, 5 and $4\frac{1}{2}$: at $\frac{1}{4}$ flood, you must heave the lead as fast as possible: White island will be almost in a line with the east end of Hare island (between it and Brandy pot island, and a white house on the south shore, near the river side,) almost shut in with the rocks off the east end of the N. E. Pilgrim.

Though the strong flood tide here will set you very fast towards the shoal off the S. W. end of Hare island, yet be very cautious how you steer your ship to the westward, because the water shoals very much, but haul up to the southward, and you will directly get into 5 or 6 fathoms water. The aforementioned white house being just in a line with the rocks off the east end the N. E. Pilgrim, and White island just open of the east end of Hare island; it is shoal near the N. E. Pilgrim, therefore it is not proper to come too near it. Being above the N. E. Pilgrim, you may approach the others pretty near, and steer away for the great island of Kamourasca, which you will see about S. W. from you, and all along in this direction are regular soundings, from 10 or 12 to 14 or 16 fathoms, till near the greatest and N. easternmost Kamourasca; when abreast of it, (and very near,) you will have very deep water; but at some distance is a very good bank to anchor on, in any depth, from 9 to 14 or 16 fathoms, and good holding ground.

To escape the danger of the Middle Bank.

Coming away from Brandy pot island, (which you may pass very near too,) steer along by Hare island in such a manner that you may see White island open within Brandy pot islands, between them and Hare island. Keep along in this position until they bear about S. by W. $\frac{1}{4}$ W. and with this direction you may cross the bank with safety; then steer away for the Kamourasca islands, as before.

N. B. It is not safe to cross this bank with a large ship, till it is half flood.

Anchorage in 22 fathoms, high water.

The Lower Pilgrim islands	-	-	E. N. E. $\frac{1}{2}$ N.
The Lower Kamourasca island	-	-	E. by N. $\frac{1}{4}$ N.
Cape Goose	-	-	W. by S. $\frac{1}{2}$ S.
Middle of Coudre island, about 6 leagues	-	-	W. by S. $\frac{1}{2}$ S.
Cape Torment	-	-	W. S. W. $\frac{1}{4}$ S.

Anchorage in 14 fathoms, sand and clay bottom.

Pilgrim island	-	-	N. E. by E.
Cape Goose	-	-	W. $\frac{1}{2}$ S.
Lower Kamourasca	-	-	E. N. E. $\frac{1}{4}$ N.
Hare island	-	-	N. E. $\frac{1}{2}$ N.
Cape Torment	-	-	W. S. W. $\frac{1}{4}$ S.
Mal bay river	-	-	N. N. W. $\frac{1}{2}$ W.
Middle of Coudre island	-	-	W. by S. $\frac{1}{2}$ S.
Upper Kamourasca island	-	-	E. by N.

Anchorage in 24 fathoms.

Cape Goose	-	-	W. N. W.
N. E. end of Coudre island	-	-	W. by S.
S. W. end of do.	-	-	W. S. W.
Mal bay River	-	-	N. $\frac{1}{2}$ W.
Hare island	-	-	N. E. $\frac{1}{4}$ E.

Soundings in 30 fathoms.

When Cape Goose bears	-	-	W. S. W. $\frac{1}{4}$ S.
Cape Torment	-	-	S. W. by W.
Hare island	-	-	E. N. E. $\frac{1}{2}$ N.

When the land to the westward of Cape Goose is just open of it, and a little mountain on the south shore, near the east point of the westernmost Kamourasca islands, you have 25 fathoms.

When the land to the westward of Cape Goose is open about a sail's breadth of Cape Goose, Cape Salmon is just open of Cape Eagle, and the hill and island as before, you have 25 fathoms.

When the south mountain is quite open to the westward of the westernmost

Kamourasca island, and the land to the north-eastward just open of Cape Salmon you have 19 fathoms, soft ground.

When the west point of Mal Bay river is just opening of Cape Grosse, and the south part of the isle of Coudre bears S. W. by W. you will have 41 fathoms.

When the north part of the island of Coudre bears W. by S. $\frac{1}{2}$ S. about 2 miles off the island, you will have 35 fathoms.

When the south part of the island of Coudre bears W. by S. and Cape Grosse N. W. by W. you will have 14 fathoms.

When Cape Grosse is N. W. by W. 4 or 5 miles, and Mal Bay river N. by E. $\frac{1}{2}$ E. you will have 10 fathoms.

When the south part of Coudre is W. by S. $\frac{3}{4}$ S. and Cape Grosse W. N. W. 2 or 3 miles, you will have 15 fathoms, the water deepening to the northward.

When the south part of Coudre is S. W. and the north part of it W. $\frac{3}{4}$ S. about 2 or 3 miles from the east part of the island, the great rock bearing N. N. E. $\frac{1}{2}$ E. 17 fathoms.

Anchorage in 25 fathoms rocky ground.

Cape Torment	-	-	S. W. by W.
South part of Coudre	-	-	W. S. W. $\frac{1}{2}$ S.
North part of Coudre	-	-	W. by S.
Cape Grosse	-	-	N. $\frac{1}{2}$ E.

BEARINGS BY COMPASS.

Cape Grosse and Cape Salmon	-	N. E. $\frac{1}{2}$ N. and S. W. $\frac{1}{2}$ S.
South part of Coudre and Cape Torment	-	N. E. $\frac{1}{4}$ E. and S. W. $\frac{1}{2}$ W.

You may moor at Coudre in 17 fathoms, coarse sand. Cape Grosse just open of the land to the westward of it, bearing E. by N. $\frac{3}{4}$ N. a considerable fall of water on the north shore N. by W. $\frac{1}{2}$ W. and the east end of Coudre E. $\frac{1}{2}$ S. In this place the tide runs very strong, which causes the ship always to swing round with the sun.

You may also moor at Coudre in 17 fathoms, at low water, sand and mud.

Cape Grosse	-	-	-	E. by N. $\frac{1}{4}$ N.
Cape Torment	-	-	-	S. W. $\frac{1}{4}$ W.
East Point of St. Paul's bay	-	-	-	W. by N. $\frac{1}{4}$ N.
Water stream on the North shore	-	-	-	N.

Five fathoms water, half a mile from Coudre, till almost close to the shore, and then $3\frac{1}{2}$ fathoms at low-water mark, all clear ground.

The tides at Coudre, both ebb and flood, are very strong, yet at the Meadows is good anchorage, but not near the north shore. It is high-water at Coudre by the shore, at half past 4, at the full and change of the moon, and it runs off in the road an hour longer. There is a very long reef of rocks runs off the N. W. of the island, which are all covered at high water.

Bearings from the end of the Ledge that is dry at low water.

St. Paul's Church (just open)	-	-	-	N. 41° W.
East Bluff point of St. Paul's bay (called Cape Diable)	-	-	-	N. 97° W.
The Water Fall on the North shore	-	-	-	N. 27° E.
N. W. bluff point of the island	-	-	-	S. 22° W.
The N. E. bluff of do. off which is a reef of rocks	-	-	-	E. 9° N.

N. B. The part of this reef, which is dry at low water, lies to the westward, about S. W. and N. E. and the eastward about east and west. Near the length of a cable, farther out, is 5 fathoms, at low water.

The tide, both ebb and flood, sets into St. Paul's bay, which is shoal and rocky some distance off (from whence is given to it the name of the whirlpool) so that passing either up or down this river, it is proper to go as nigh the reef as you can,

to keep out of the contrary current: and for the greatest safety it is proper to buoy the end of the ledge, in about 5 fathoms, at low water, and it shoals out afterwards pretty gradually. If you pass it in about 8 fathoms (which is far enough off, with a breeze of wind to command the ship) you will be much nearer the island than the main ledge, and having passed the ledge, you will have 16 and 18 fathoms at a convenient distance from the island.

There is a shoal or ledge of rocks off the north shore, all the way from the west point of Paul's bay, or Cape Raven, to Cape Hog, which is about a league above Cape Maillard. This shoal lies not a great way off, but farther in some places than others. In coming away from Coudre and sailing up the river, it is proper to keep three capes, which you will see to the westward, open one of another. All the way from Coudre, till you come past the little river settlement, or to bring the church of it to bear about N. W. by N. is a very rocky bottom, and then begins good ground.

Anchorage in 16 fathoms, sand and mud.

Cape Maillard, distance about $1\frac{1}{2}$ mile	-	-	N. W. by N.
South part of Coudre	-	-	N. E. $\frac{1}{2}$ E.
Pillar island	-	-	S. E. $\frac{1}{2}$ E.

Anchorage about one mile from the North shore, in 9 fathoms, at low water, sand and mud.

Pillar island, in one with a *rocky island	-	-	E. 4° N.
Cape Grosse, almost one with the S. E. part of Coudre	-	-	N. 46° E.
Cape Torment, a little open with Burnt Cape	-	-	S. 72° W.
The south part of Orleans island	-	-	S. 63° W.
Cape Race, just open of Cape Maillard	-	-	N. 30° E.
North part of Coudre	-	-	N. 36° E.

[Observed the latitude here to be 47. 04.]

* Bearings taken from the said rocky island.

Cape Grosse, a sail's breadth open of the S. E. part of Coudre	-	-	N. 50° E.
North part of Coudre	-	-	N. 40° E.
Cape Corbeau, or Cape Raven	-	-	N. 35° E.
Cape Maillard	-	-	N. 21° E.
Cape Torment	-	-	S. 65° W.
South part of Orleans, in sight	-	-	S. 55° W.
In one with the east end of rocky ledge.			
Pillar island	-	-	E. 1° N.

This rocky island is about half a cable's length, dry at low water, and very craggy; it is never covered, although the sea may break all over it in bad weather.

A white house, on the south shore, open of the east end of the Isle of Madame (and when it is quite shut in) being very near the north shore, you will have 11 fathoms.

A little mountain open of the west end of Rot island, being near the north shore, you will have 9 and 8 fathoms.

The same mountain on the east end of the Isle of Madame, about $\frac{1}{4}$ of a mile from the shore, you will have 10 fathoms; then haul over for the Traverse.



Directions for passing the Traverse.

BEING past Burnt cape, or when it bears N. N. E. from you, haul over for the Traverse, which ought to be passed in a very clear day. If the points of the shoals are not buoyed, which for greater safety should be done, because in hazy weather the land marks cannot be seen, which are three mountains very far inland, and a little round hill to the westward, may likewise be made use of, which

after you are past Burnt cape, and crossing in the Traverse, must always be kept to the westward of the east end of Madame, or otherwise you will certainly be on a sand shoal, which extends itself from Burnt cape ledge. This mountain, in clear weather, may always be seen, and keeping it a ship's length to the westward of the east end of Madame, is the best mark for the Traverse; and this course should be continued until two points on the south side of Orleans are opened a good ship's length off each other, that is, St. John's point, with the point of Dauphine river, and then you may bear up, and steer up along with the point of St. John, still a little less open, as you go farther up towards the island of Orleans, to avoid a little shoal that is off the east end of Orleans, on which there is not quite three fathoms, at low water, off which there is no danger for any ship, except it should be dead low water; yet St. John's point should not be shut in with Dauphine point (or else you may be on the shoal that reaches from the east end of Orleans) till you are almost abreast of Cape Torment, or until it bears N. There is another mark to know when you are far enough over from Burnt cape, and that you may bear up, observe on the south shore a little round mountain, (there being no other near,) when you have brought this little mountain open to the westward of the Two head island, you may bear up for Orleans, &c. As the Two head island cannot be well distinguished by a stranger, from the other islands, so it may be supposed a stranger will not attempt to pass the Traverse, without first acquainting himself with it. This little mountain, when open of the Two head island, will bear S. 69° E. there is no danger in standing farther to the southward, as the channel is pretty wide; but as there is a shoal between you and Rot island, on which is but 9 feet at low water and uneven rocks; to avoid this shoal you should observe the point of Orleans for marks, as aforesaid.

There is a mark to know when you are coming on the edge of this shoal, which is, observe to the eastward, on the south main land, a mountain, which appears to have three points, of an equal distance; when this mountain is brought on the east point of Canoe island, you are coming on the edge of this shoal; there is likewise a little rocky island off Burnt cape, which, when you are on the end of this shoal, will be about 2 ship's length open of Cape Grosse. When you are on the shoal, the island will be nearly in a line with Cape Grosse, and the Three-pointed mountain with Canoe island.

To make use of the three mountains aforesaid.

In coming up past Burnt cape, when you have brought the west end of the westernmost mountain on with the east end of Rot island, you may steer over with them in one line, until you open St. John's point, as aforesaid. Nor is there any danger in bringing the east end of the westernmost mountain on with the east end of Rot island, but it should not be brought to the westward of it until you have open St. John's point. You might by this last mark go over near Rot island, and go up to the southward of the middle shoal, with St. John's Church just open of the point; in this channel is deep water, but it is narrow; it is called the Old Traverse, and the other is called the New Traverse. It is not proper for the Old Traverse to be made use of, as the passage between the middle shoal and the sand off Burnt cape ledge is narrow, and you will be so much the longer going across the tide, which may carry you out of the way if you are not very attentive to the marks. The middle shoal reaches up the river until you have got Bellechase church a good deal open of the west end of Rot island, but as a mark of this kind is very deceiving, it reaches until you have brought the east end of the middle mountain on the west end of Rot island, and then you will be past it, and have the channel open from near the island of Orleans, to very near the west end of Rot island, and may anchor between Orleans and Madame islands, or proceed up the river, at pleasure. If it should be thick weather, and you would pass the Traverse, and the mountains cannot be seen, nor the ends of the shoals buoyed, it might be done by keeping one or two houses open of the east end of Rot island, or the third house may be brought in a line with it, but should not be opened; and these marks may be observed until you have opened St. John's point, as aforesaid.

But as these houses may be mistaken for others, even by a person who is acquainted with the Traverse, it is not safe to use them. It is certain, the greatest difficulty of the Traverse is in coming over from Burnt cape, to open St. John's point, as the channel is but narrow, and you are so long going across the tide; and at Burnt cape the channel is not above $\frac{3}{4}$ of a mile wide between the cape and the point of the ledge. You should likewise observe here, to keep clear of the ledge, to keep a part of the Butt (which is a high spot of land in the middle of St. Joachim's meadow, and appears like a platform or island) always shut in behind Cape Torment; that is, you must not open it all of the cape until Burnt cape bears N. of you, or you will certainly be on the ledge. The soundings at the edge of this ledge are very uncertain, for at one cast you will have 5 fathoms, and at the very next cast (heaving the lead fast) you may be on shore. It may be observed, that just as you have St. John's point opening, there is not any more water any where in the channel, between Orleans shoal and the shoal off Burnt cape, than 5 fathoms, at low water; but after you have bore up for Orleans, there is 6 and 7 fathoms at low water, within a ship's length of the sands that dry.

Soundings in the Traverse.

Abreast of Burnt cape, a little round mountain to the westward, on with the E. end of Madame, 5 fathoms.

The same mountain between Rot island and Madame, 4 and $4\frac{1}{2}$ fathoms.

The E. end of the first W. mountain on the W. end of Grosse island, and the little one to the westward, a little to the westward of the east end of Madame, $5\frac{1}{2}$ fathoms.

The W. end of the second mountain on the W. end of Grosse island, and little mountain on the E. end of Madame, $2\frac{3}{4}$ fathoms.

Little mountain on the E. end of Madame, and the E. end of the second mountain on the W. end of Grosse island, $2\frac{3}{4}$ fathoms.

The little mountain, a little to the westward of the E. end of Madame, and the W. end of Grosse island in the middle, between the second and easternmost mountain 6 fathoms.

A white house just open of Madame, and the hill a little to the westward of the E. end of Madame, and the E. end of the third, and easternmost mountain on with the W. end of Grosse island, 6 fathoms.

The W. end of the first mountain on the E. end of Rot island, St. John's point well open, $5\frac{1}{2}$ fathoms. (Steer by it.)

The middle of the first mountain on the E. end of Rot island, the Little mountain just to the westward of the E. end of Madame, St. John's point well open, $4\frac{1}{2}$ fathoms.

N. B. Keep the Little mountain always to the westward of the E. end of Madame.

The E. end of the first mountain on the E. end of Rot island, two white houses open of Madame, the Little mountain just opening to the E. end of Madame, $4\frac{1}{4}$ fathoms, (never open the Little mountain.) The W. end of the first mountain on the Vista in Rot island, St. John's point well open, 5 fathoms.

The E. end of the first mountain on the Vista, St. John's point well open, 5 fathoms.

The second mountain on the Vista, and another little hill near the other, on the W. end of Madame, St. John's point well open, $6\frac{1}{2}$ fathoms.

Marks on the little shoal near the E. end of Orleans.

The W. end of the second mountain on the W. end of Rot island shoal, and the west trees of Rot island, about the middle of the same mountain; the W. part of the Three pointed mountain on the E. point of Canoe island; St. John's point a good deal open of Dauphine.

The E. point of Orleans, on the Little Valley, at the W. end of the Saddle mountain.

Bearings on the East end of Orleans Ledge, in 4 fathoms at low water.

The Little Rocky island	N. 63° E.
Cape Torment	N. 2 E.
West end of Rot island	S. 30 W.
E. end of Rot island, and E. end of the Second Mountain	S. 13½ E.
W. end of Grosse island	S. 28 E.
W. end of the Two head island, and the Little Mountain, just to the westward of it	S. 69 E.
W. part of the Three pointed Mountain, on the W. part of Goose island	N. 83 E.
St. John's Point a good deal open	S. 52½ W.
W. end of Madame	S. 40½ W.
E. end of Madame	S. 34½ W.
E. end of the First Mountain, about one fifth the distance of Rot island, from the E. end	S. 6 E.
Cape Grosse	N. 52½ E.

Bearings near the edge of the Middle Ground.

E. end of Orleans	N. 63° W.
A Buoy on a little shoal, near Orleans	N. 54 W.
St. John's Point	S. 53½ W.
St. Francis' Church	S. 72½ W.
West end of Rot island	S. 6 E.

Bearings taken from the upper end of the land (off Orleans) dry at low water.

The W. end of Rot island	S. 3½ W.
E. end of Rot island, with the W. end of Grosse island	S. 55½ E.
Cape Torment	N. 31 E.
St. Joachim's Farm	N. 12½ W.
St. Joachim's Church	N. 52 W.
E. point of Orleans	N. 71 W.
N. point of Orleans	W.
The Little island	N. 60 E.

Bearings from another station, near the east end of the said land, dry about 1½ mile N. 63° E. from the last.

W. end of Rot island	S. 22° W.
E. end of Rot island	S. 25½ E.
W. end of Grosse island	S. 36 E.
Little island	N. 63 E.
Burnt Cape	N. 39 E.
Cape Torment	N. 14 E.
E. end of Orleans	S. 64½ W.
Point of Dauphine's river.	S. 52 W.
St. Joachim's Farm	N. 58½ W.
The shoal to the Eastward	N. 51½ E.

Bearings from the West end of Rot island.

Cape Torment	N. 18° E.
St. Joachim's Farm	N. 3½ W.
E. part of Orleans	N. 38½ W.
S. W. end of Grosse island	S. 39 E.
Little Mountain	S. 82 E.
E. end of the third	S. 27 E.
E. end of the second	S. 18 E.
Westward of the First Mountain	S. 7 E.
Middle of Bellchase island	S. 19 W.

Bearings from the East end of Rot island.

St Thomas's Church	S. 53° E.
W. end of the First Mountain	S. 2 E.
E. end ditto	S. 7 E.
E. end of the second ditto	S. 14½ E.
Bellchase	S. 27 W.
Middle of Bellchase island	S. 36½ W.
The Mark Windmill	S. 43 W.
St. Valier's Church	S. 47 W.
N. E. part of Grosse Island	N. 83 E.
N. E. part of Crane Island	N. 80 E.
S. W. part of the Two heads	N. 78 E.
Little island	N. 33 E.

Houses below St. Joachim's	- - - - -	N. 28 $\frac{1}{2}$	W.
W. end of the Butt	- - - - -	N. 51	W.
E. end of Saddle Hill	- - - - -	N. 64	W.
Two points off Orleans	- - - - -	N. 75 $\frac{1}{2}$	W.
St. Francis's Church	- - - - -	S. 86 $\frac{1}{2}$	W.
<i>Bearings for the west end of Madame.</i>			
St. John's Church	- - - - -	S. 71 $\frac{1}{2}$	W.
Port St. Lawrence	- - - - -	S. 68	W.
St. Valier's Church	- - - - -	S. 28 $\frac{1}{2}$	W.
The Mark Church	- - - - -	S. 17 $\frac{1}{2}$	W.
St. Thomas's Church	- - - - -	S. 86	E.
Bellchase Church	- - - - -	S. 40	E.
The Middle of Bellchase Island	- - - - -	S. 25	E.
E. end of the First West Mountain	- - - - -	S. 18 $\frac{1}{2}$	E.
Dauphin River	- - - - -	N. 60	W.
Little Mountain	- - - - -	E.	
South part of Crane island	- - - - -	N. 79	E.
South part of Grosse	- - - - -	N. 70 $\frac{1}{2}$	E.
S. part of St. Margaret, on the Three pointed Mountains	- - - - -	N. 75 $\frac{1}{2}$	E.
Cape Raven	- - - - -	N. 40 $\frac{1}{2}$	E.
Cape Torment	- - - - -	N. 29	E.
E. point of Orleans	- - - - -	N. 19	E.
St. Francis's Church	- - - - -	N. 5	E.

From Point St. John to Point St. Lawrence there is no danger, and about a mile from the shore of Orleans you will have 9, 7, 10, 13, 16, and 18 fathoms, rocky ground.

At Point St. Lawrence you must (in order to avoid the shoals of Beaumont) keep the starboard shore till you have passed the falls of Beaumont, which are on the south shore, and then steer up in the middle of the stream, till near the west end of Orleans, when, to avoid the Morandas Rocks, keep nearest to the south shore, and you may anchor at $\frac{3}{4}$ ths of a mile from the south shore, in 9 fathoms water. Point Levy bearing W. S. W. and the west point of Orleans N. N. E. rocky ground, or you may proceed with the tide directly for Quebec and anchor within 2 cable's length of the town, in 15 fathoms, muddy ground, Cape Diamond bearing S. W. $\frac{1}{2}$ W.—N. end of the Barbet battery W. by N.

THE TIDE FLOWS FULL AND CHANGE.

At Quebec, half an hour after 8.
 Isle Madame, at 8.
 Cape Maillard, at 7.
 Isle of Coudre, at 6.
 The Kamourasca, at $\frac{1}{2}$ past 5.
 The Pilgrims and Hare Island, at 5.
 Bic, $\frac{1}{2}$ past 3, but not regular.

N. B. From Coudre to Quebec the water falls 4 feet before the tide makes down. At Isle of Coudre, in spring tides, the ebb runs at the rate of 9 knots. The next strongest ebb is between Apple and Basque islands—the ebb of the river Sanguina uniting here, it runs full 7 knots in spring tides.

Directions for sailing from Quebec, down the River St. Lawrence.

FROM Point Levy to Point St. Lawrence, the course is E. $\frac{1}{4}$ N.

From Point St. Lawrence to St. John's the course is N. E. by E.

From St. John's to St. Francis, N. E. $\frac{1}{4}$ N. keeping upon the island side, all the way having from 10 to 16 fathoms.

When abreast of St. Francis, steer N. N. E. until you bring St. John's point a handspike length open with Dauphin point: with that mark steer N. E. $\frac{1}{4}$ E. at which time a round rock will be right ahead of you; continue this course until a high hill on the south shore will be just on with the east end of Rot Island, at which time the trees on the said island will be just abreast of you, and then

steer N. by E. for Cape Torment; keep very near Burnt Cape, on account of Burnt Cape ledge, that lies opposite to it.

Anchorage on the edge of Burnt Cape Ledge, in 4 fathoms.

East end of Hot island	S. 14° W.
West end of Grosse island	S.
West end of the First Mountain, about a sail's breadth to the Eastward of Grosse Island	E. 3 S.
Middle of Little Island	N. 25 W.
Burnt Cape	

REMARKS.

The Little Hummoc, or rising on the high land of Coudre, must never be open of Cape Maillard, till you are below Burnt Cape, nor all the Butt, by any means kept open of Cape Torment, if you would keep the channel, which is but $\frac{3}{4}$ ths. of a mile wide at Burnt Cape.

Bearings taken from the West end of Little Island, or Gooseberry island, which lies about N. 55° E.

West end of the Butt	S. 77 $\frac{1}{2}$ ° W.
Cape Torment	S. 85 W.
Burnt Cape	N. 69 $\frac{1}{2}$ W.
Cape Maillard	N. 36 $\frac{1}{2}$ E.
Cape Raven	N. 37 E.
Cape Grosse	N. 52 E.
Neptune Rock	N. 52 $\frac{1}{4}$ E.
The middle of Three-pointed Mountain on the east end of Grosse island	N. 84 E.
The westernmost Rock dry	S. 58 E.
The Little Mountain	S. 57 E.
West end of Crane Island	S. 30 E.
East end of the first Mountain	S. 4 E.
West end of Grosse Island	S. 15 $\frac{1}{2}$ W.
East end of Rot Island	S. 29 $\frac{1}{2}$ W.
West end of Madame	S. 46 W.

You must then steer N. E. for Cape Maillard, keeping the north shore on board, which is very bold.

From Cape Maillard to go clear of Coudre Spit, N. E. by N.

In sailing from Cape Maillard to Coudre with the tide of ebb, you must go as near as possible to the point of the shoal which lies off the N. W. end of the island, till you come in 8 fathoms water.

The first of the tides sets directly on Cape Diable from this point; so that if you have but little wind you must anchor before you get within 2 miles of the point. At $\frac{1}{2}$ ebb the tide runs truer through the channel. The moment you get to the eastward of the point (if you intend to anchor) haul up for the meadows, otherwise you will not be able to get in good ground.

The course from Coudre to the Kamourascas and Pilgrims is N. E. by E.

From the middle of the Pilgrims to the Brandy pots, the course is N. E. $\frac{1}{4}$ N.

From the Brandy pots to the Isle of Bic, is N. E. by E. $\frac{1}{4}$ N.

Directions for the South Channel from St. John's Point of Orleans, to the S. W. end of Crane Island, opposite the South River.

THERE is a ledge of rocks lies off the S. W. end of Madame about S. 60° W. from it, and in a line for a point on the south shore; these rocks are very dangerous and dry at low water. To know when you are at the end of it, and that the channel is all clear, observe on the high land by the water side on the south shore, a windmill and 3 mountains, a great way back in the country (the same three mountains taken notice of for the Traverse;) when this windmill is brought in a line with the east end of the westernmost of the 3 mountains, you are just off and on of the west end of the shoal. But as it may be often hazy that the mountains cannot be seen, the windmill will then bear S. 22° E. St. John's church

S. 85° W. St. Francis' church, N. N. E. Bellchase islands, E. 10° S. and the north part of Rot island about two ships' length, open of the north part of Madame: Therefore, to be quite clear of the ledge, the windmill should bear S. 30° E. then St. Valier's Church (which is the next church to the westward of it) will bear about S. 12° E. and the middle of a little wood by the water side, on Orleans, N. W. Being below the end of the ledge, going down, a part of Rot island should always be kept open to the southward of Madame (as in the north channel Rot island should always be kept quite open to the northward of Madame, while you are between the ledge and Orleans island;) and if you have a fair wind, you may steer away directly for the South part of Crane island, the channel being clear and open until you bring St. Francis' church to bear N. 70° W. or the east end of Rot island, N. 38° W. for in that direction begins a shoal off the south shore, a little above a point called Quail point. This shoal is very wide, and extends half the breadth of the channel of St. Thomas' church, and the south river; and to keep clear of this shoal, you should always see a part of the Grosse islands open to the northward of Crane island. The channel is very near Crane island; here is every where good anchorage, clay bottom and in the channel, in most places, 7 fathoms water. The south shore is every where else pretty bold too, and there is deep water very near Bellchase islands. In turning between St. Margaret's island and the shoal, you may stand to the southward until the Grosse islands are almost shut in by the N. part of Crane island, and to the N. until the Grosse islands are quite shut in (to the N.) by the south part of Moiac island, or until Canoe island is almost all open to the northward of Moiac island, but not any farther, nor even so far with a large ship. The island St. Margaret is pretty bold, only a few rocks lie off it, and those not far; the farthest off is a single rock off the S. W. end, and therefore it is not proper to come too near the island here. There are likewise some few rocks off Grosse island, and not far off Rot island is a flat or sand bank, which lies above half a mile into the channel; it is likewise shoal to the southward of Madame, but not far off; but as it is bold towards the south shore, it is not proper to come too near those islands. Crane island is bold too, and the best of the channel is very near to it. On the N. W. end of Crane island, (the South river falls, S. 4° E. St. Thomas' church S. 22° W. Bellchase church, S. 60° W. west end of Grosse island, S. 35° 30' W.) a base line of 1 mile was measured to the south part of the island called La Point au Pain, or Bread Point, by which the breadth of the channel and the extent of the shoal off the south river (on the edge of which a sloop was anchored) were determined as follows:

From the west part of Crane island to St. Thomas' church, 3 miles.

From ditto to the South river falls, 3½ miles.

From ditto to the edge of the shoal in a line with St. Thomas' church, 1½ mile.

N. B. For a greater certainty of keeping in the channel, you may keep a high mountain (at a pretty great distance on the south shore) in a line with the south part of Crane island or Bread point. This mountain bears with the said point N. 71° E. and S. 71° W. and then you will have all along about 7 fathoms water and exceeding good holding ground, clay bottom; nor are the tides near so strong as in the north channel.

As the Editor has now completed Directions relating to the LABRADOR, he begs leave to inform the public he has just published a complete Chart of that Coast, on a large scale, which for accuracy surpasses any extant.

Directions for sailing into Shelburne Harbour, (N. S.)

SHELBURNE is a safe harbour against any wind, except a violent storm from the S. S. W. At town the wind from S. by E. does no harm, but from S. by W. to S. W. by S. if blowing hard for any considerable time, it is apt to set the small vessels adrift at the wharves; but in the stream, with good cables and anchors, no wind can hurt you.

Shelburne light-house is built on the south-eastern end of M'Knut's island, and forms the western side of the entrance into the harbour. It exhibited lights,

for the first time, on the 7th of Sept. 1792. About half way from its base to the upper lanthorn is a small lanthorn, shewing a distinguishing light. Generally, it is well attended to, and shews as well as any light on the coast. The light may be approached with safety in the night, from any situation, when it bears from N. N. E. to W. N. W. There is water enough for a first rate Man of war, within a cable's length of the point on which it stands. A vessel going in at night, having got sight of the light and bringing it to bear any way between N. N. E. and W. N. W. ought to run for it until pretty near to it, so as (if it is not very dark) to see or hear the surf on the shore; then leave it on the larboard hand, and still keeping the larboard shore on board until they find by their lead, good anchorage, which will be 4 or 5 miles above the light-house. The bottom is good from the light-house to Sandy point, about 8 miles over, a depth of water from 12 to 5 fathoms; a vessel may tura up without meeting any obstruction whatever, except the shore on each side, taking care to keep the lead going, in order to discover the shore soundings, when the weather is so dark as to hide the land off the shore on both sides. The passage is not more than $1\frac{1}{2}$ mile wide from the middle head of the island (which is about 3 miles above the light on the same side) over to the eastern shore. Coming from the eastward, or seaward, there is a rock, which is seldom, if ever, covered with water, called the Bell, (by some it is called the Bull, and others the Cow,) which bears from the light, E. 20° N. $2\frac{1}{2}$ miles distant. It is bold too, on any side of it, and may be passed at a pistol shot with safety; and a run of 4 or 5 miles N. W. from it, will bring you up to some where about the Middle head, whence you proceed up channel about N. N. W. to Sandy point, off which runs a spit of sand, which must be avoided by keeping further to the westward. This is the only obstacle in the whole passage, and you may anchor in the night below it, as it would not be proper, or even necessary, for a stranger to attempt it, finding such good anchorage before you come to it. After rounding Sandy point, the town appears, and you may run up without difficulty.

[Shelburne affords an excellent port of shelter to vessels in distress, of any kind, as a small supply of cordage and duck can, almost at any time, be had. Carpenters can be procured for repairing; pump, block, and sail makers also. It affords plenty of spars and provisions of any kind, in tolerable plenty. Water is easily provided, of an excellent quality.—The port charges for a vessel which puts in for supplies only, is 4 pence per ton, light money, on foreign bottoms. If a vessel enters at the Custom-house, the charges are high; that, however, is seldom necessary.]

The following bearings and distances were taken at the Light-house.

From the Light-house to Berry's or Sunbridge Point, N. 40° E. 2 miles.
 From ditto to Straptub rock, off the above, N. 45° E. 2 miles.
 From ditto to the Bell rock, N. 70° E. $2\frac{1}{2}$ miles.
 From ditto to the south end of the westernmost Ragged island, N. 84° E. 7 miles.
 From ditto to the easternmost Ragged island, N. $86^{\circ} 30'$ E. $10\frac{1}{2}$ miles.
 From ditto to the S. W. breaker of the Ragged islands, S. $81^{\circ} 34'$ E. 8 miles.
 From ditto to Cape Negro, S. 39° W. 9 miles.
 From ditto to the Jig rock, (which almost always breaks, and lies in shore of the track into Shelburne,) S. 28° W. $1\frac{1}{2}$ mile.
 Latitude of the Light-house, - - - $43^{\circ} 42' 30''$ N.
 Longitude from London, - - - $65^{\circ} 8'$ W.
 Variation of the Compass, 13° Westerly.

Directions to go to the eastward of the island of Campo-Bello, between the said island, and the Wolves' Islands.

IF you are bound to the river of * Passamaquoddy, in a large vessel, your best way is to go to the eastward of Campo-bello, keeping your course N. E. by E.

* There are three rivers which fall into Pasamaquoddy bay; the largest is called by the modern Indians the Scodick, but by De mons and Champlaines, Etchemins. Its main source is near Penobscot river. The mouth of the river has 25 fathoms water, and the land is very high.

which will carry you to the Wolves, distant about 3 leagues from Campo-bello. The Wolves lie about E. S. E. from said island, and when the passage between Campo-bello and the White horse bears W. N. W. you must steer W. N. W. leaving the White horse on your starboard hand and keep the island (Campo-bello) best on board. The White horse is a large white rock, which lies off the N. E. end of Campo-bello. You will see a fine harbour, called by the French, Harbour Delute, and will leave several islands on your starboard hand when you pass the White horse. As you pass here you will open a large bay to the W. S. W. which is sufficient for 100 sail of the line to lie in. There is very deep water between the Wolves and the island of Campo-bello, being from 50 to 100 fathoms. Bring Campo-bello island to bear S. S. E. or S. E. and you will have 20 fathoms water, where you may anchor and lie safe from all winds. Your course to Moose island is W. S. W. distant 2 leagues, where you may anchor in 8 or 10 fathoms, muddy bottom. Here is the best harbour in the United States for making dry docks, as you may have them either on the south end of Moose island, or 30 or 40 miles up Scodick river. Common tides rise here 25 feet. At full and change it is high water at half past 11 o'clock, at Moose island.

Directions for the Eastern Coast when you fall in with Grand Manan or Mount Desert Hills.

THESE places may easily be known from the western coast. Mount Desert hills may be seen 20 leagues at sea, and when within 4 or 5 leagues of them, you may see Skutock hills bearing about N. N. E. The tide of flood sets here E. N. E. and the ebb W. S. W. but as soon as you are 9 or 10 leagues from the land, the current runs, in general, to the S. W. westward.

If you fall in with Mount Desert rock, which lies S. 6 leagues from Mount Desert hills, you must observe the tide of flood sets W. S. W. along shore, till you come to the Fox islands; but the same flood runs up to the northward into Blue-hill bay, Union river, and * Isle-au-haut bay.

The next remarkable land is Penobscot hills, which you will see over the Fox islands, bearing from the N. W. to N. N. W. of them. When you pass the Isle-au-haut, in steering W. S. W. you will leave Mautinicus islands and Mautinicus Seal islands to the southward of you. (If at night or thick weather it is advisable to go to the southward of all these islands, unless you are well acquainted.) When you pass to the westward of Mautinicus islands, the main passage from sea to Penobscot bay, lies about N. by W. If you go into this passage you leave Mautinicus island on your starboard, and the two Green islands on your larboard hand, steering north westerly, 4 leagues, and if bound up the bay, follow your directions for Penobscot bay.

If you come in from sea and make the island of Mauheigin, when it bears N. or N. N. W. it appears like two islands; but when it bears east or west, it appears in one island. Damiscove islands lie to the W. by N. of it, which are all bare of trees except the north part. The rocks, called Bantam ledge, lie 2 miles from Damiscove, S. W. or W. S. W. When you are 6 or 7 leagues off at sea, you will have 70 or 80 fathoms water, with a S. W. current. In general, between Damiscove and Mauheigin island, the flood tide parts and sets E. N. E. to the eastward, and W. S. W. to the westward as far as the island of Seguine, and to the northward up to Broad bay, Sheepscut and Kennebeck rivers, and the ebb sets the contrary way.

† Seguine island is remarkable when bearing east or west. It lies 2 miles from Broad, but when it bears north, shuts in with it. It may be known by the high land of Cape small point, bearing N. W. from it. You have deep water to the eastward of Seguine. When you pass to the westward of Seguine, the tide of

* The Isle-au-haut is remarkable land, which makes with a large bay on each side of it, and the highest part of the island is in the middle.

† There is a light-house on this island.

flood sets strong to the northward into New Meadows and W. N. W. into Broad Sound, and up to Portland, and the ebb tide the reverse. Your soundings, between Seguin and Cape Elizabeth, are various; at times you have 18 or 20 fathoms, rocky bottom, and within a cables length you will find 30 or 35 fathoms, muddy bottom.

There are three rocky ledges, that lie about east and west, to the westward of Seguin, which are not much wider than a wharf. The land here is all in islands until you come to Cape Elizabeth, which has a Pyramid on it, a light-house to the N. W. and a windmill to the westward, near Richmond's island, which is the first windmill you see when coming from the eastward. Richmond's island lies 4 leagues N. E. northerly of Wood island light, and 1 league W. of Portland

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Directions from Machias to Passamaquoddy.

WHEN you leave Machias and are bound to Passamaquoddy, bring Grass island to bear S. W. by W. and steer N. E. by E. distant 9 leagues to West Passamaquoddy light house. But if the wind takes you to the eastward, there is a good harbour about two leagues to the N. E. of Cross island. This harbour bears due west from the middle of Grand Manan island, and is called the Little River, but you cannot see it except you are near the north shore. You must not run in for it, before it bears N. W. or N. N. W. There is a bluff point of rocks on the starboard hand as you go in, and an island in the middle of the harbour. As you pass in, leave the island on your larboard hand, and when you have passed it half a mile, you may anchor in 4 or 5 fathoms, muddy bottom, and remain safe from all winds. Your course from this harbour to West Passamaquoddy, is N. E. by E. distant 7 leagues. When you come from the S. W. and are bound into West Passamaquoddy, you must give the Seal rocks a birth of $\frac{1}{4}$ of a mile before you haul in for the harbour, as there is a whirlpool to the eastward of them. The bay is about 1 league from this point: it is high water here at full and change of the moon about half past 11 o'clock.

There is a good bay that lies about W. S. W. from this point, where you may anchor, if the tide does not suit to go over the bar; but if the tide suits you may proceed, keeping to the westward till the bar bears N. N. W. which course you may steer till you get up to Allen's island. In steering this course you will see a house that has two doors in it on Allen's island, which house you must keep open with a little Green island which lies in the middle of the passage. When you get over the bar this house must be brought open to the westward of the island, and you may go on either side of it, as the wind should favour you. If you go to the westward of it, with the tide of flood, and the wind fails you, the tide will carry you into a large bay on your larboard hand. The first island you come to is the Collector's, which lies on your larboard hand, and the next to this is Allen's island. When you come to the westward of the little island, you may anchor opposite the log house on Allen's island, or direct your course N. N. E. distant 3 miles, to Moose island. In the passage of West Passamaquoddy, the tide sets N. N. W. over the bar, 2 hours before it rises one foot, and likewise sets S. S. E. two hours before high water. When up as far as Allen's island, if you leave it with the tide of flood, steer N. N. E. 3 miles, when you will have the tide against you 4 hours; and two hours before high water the tide sets S. S. W. till you come down to the Collector's island, when it sets over the bar S. S. E. The tide rises here 25 feet. There is a fine cove on the south end of Moose island, where a ship of 500 tons may lie, moored head and stern, safe from all winds, but the anchors are very much exposed, with the wind to the eastward or E. N. E.

If you are bound up Scodick river from Moose island, as you pass Bald head, give it a birth of half a mile as there is a large ledge of rocks that lie off from it. When you have passed this point your course is N. N. W. distant 8 or 9 leagues to the Devil's head, or Oak point (so called) the Devil's head you

leave on your larboard hand, which is very high land and may be seen 10 or 12 leagues. Your course from said head is W. N. W. 1 league, when you will come to a large ledge of rocks that you must leave on your larboard hand, which is bare at two hours ebb, and extends half way across the river. Keep your starboard hand on board, and when you pass this ledge your course is W. S. W. distant 1 mile to Pumroy's point, and from said point to the harbour your course is N. W. by N. distant 3 miles, and the next reach to the Falls is W. N. W. distant 1 mile; the tide flows here 25 feet, and there are only 6 or 7 feet in the channel at low water, with long flats of mud on both sides.

There are several good harbours on the west side of this river, and all the difficulty is the great depth of water, which is in general from 18 to 24 fathoms. There is also a good harbour on your starboard hand, going into Deer island, which lies to the southward of St. Andrews, 2 leagues distant. It may be easily known, as there is a large bay between the two islands, which lies N. E. from the river St. Croix, 3 leagues distant. St. Croix lies in lat. $45^{\circ} 07' N$.



Directions from Mount Desert to Gouldsborough and Machais.

In going from Mount Desert rock to Gouldsborough, you must steer N. N. E. for * Skutock hills, which lie to the N. N. E. of that port, and are remarkable from any hills in the eastern country. Keeping your course N. N. E. about 4 leagues you will pass Frenchman's bay, which you leave on your larboard hand. You will see three islands which lie in the mouth of the harbour; you must leave them on your larboard hand, and go in the eastern passage. In standing in for this place you will see a small island called † Tetitmenan's island, which you leave on your starboard hand. North from Tetitmenan one eighth of a mile distant lies a ledge bare at half tide, which you keep within half a cables length of, when going over the bar, which you pass on your starboard hand when bound eastward, at which as you pass the bar, Scoodick Island will be a handspikes length open to the southward of Scoodick Point. When near the bar, and up with Tetitmenan, keep E. S. E. one half a mile distant, which will clear a ledge having 9 feet water at low water, that lies E. of the channel going over the bar, one fourth of a mile distant. There is a bar that runs from the shore to this little island, which is about 1 league from the land. This bar has $3\frac{1}{2}$ fathoms at high water, and 9 feet at low water. If you are bound to Machais or Passamaquoddy, your course from Mount Desert is E. N. E. distant to Machais about 17 leagues. In steering the above course and distance, you pass by nothing but islands on your larboard hand, with inlets and sundry good harbours, pleasant rivers, Moose Peck reach and Chandlers river, which are all good harbours, but too intricate to be described for strangers to attempt it with safety. If you cannot steer your course as above directed, in standing to the E. N. E. there are three low islands to the S. W. of Grand Manan island, which lie due S. E. from Machias, distant 4 leagues, which you must be careful of in the night. You may see the island of Grand Manan 2 or 3 leagues before you come to it, and when it bears N. E. these islands runs S. W. from Grand Manan about 2 leagues distant, and in thick weather if you make these islands, you may run for Machias, bringing said island to bear S. E. and then run N. W. for the entrance of Machias: or if you make the S. W. end of Grand Manan, bring it to bear E. by S. and steer W. by N. for Machias. 5 leagues dis-

* There are five of these hills, and at a distance they appear round.

† *Tetitmenan Island* will have a Light-House erected on it in the summer of 1817, on the S. E. part of the Island. It will be a stone building, 25 feet high, and the lamps will be 53 feet above the level of the sea, and contain a *fixed light*. This light will be of great importance to Navigators on the Eastern Coast, it will be a sure guide in bad weather; and from it a departure may be taken for several good and convenient harbours. Your course from *Tetitmenan* light to *Gouldsborough's* harbour is N. W. by N. $4\frac{1}{2}$ leagues distant.

S. E. from the Light-House, 3 miles distant, lies a ledge with only 8 feet at low water, and E. by S. 4 miles from the light, lies another ledge with 12 feet at low water.

tant, and when you have passed Cross island, which you leave on your starboard hand, you may steer north. In steering this course you will leave a large white rock on your larboard hand, and if you do not want to go into Machais harbour, you may haul to the westward. After you have passed this rock about half a mile, bring a high round island that is covered with trees to bear north, when you may anchor in 4 or 5 fathoms, muddy bottom. This is called Jones' harbour, but if you mean to go up to Machias, you must keep your course north till you pass a round high island on your larboard hand, when you may shape your course W. S. W. or W. by S. for a point that is covered with young birch trees, and a house on it, for on the starboard hand there is nothing but flats and shoals; you may keep your larboard head after you pass this house until the river opens to the northward, when you may run up to Cross river, where you may anchor in four fathoms; but if you are bound up to the S. W. mills, you must haul away to the westward. When you get up with Mr. Parker's house and barn, which are on the starboard hand, you must leave the barn open to the south westward of the Pott head: This Pott head is a large hill that you leave on your starboard hand.

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*Directions from Long Island to the south west Harbour of
Mount Desert.*

Your course is N. E. or N. E. by N. distant 5 leagues. You must leave the two Duck islands on your starboard hand and three islands on your larboard hand. It is not safe for a stranger to run here in the night, as there is a large ledge that is covered at high water, and bare at half tide. You leave this ledge on your starboard hand, which is about one mile from the harbour. There is a long ledge on the larboard hand which runs off half a mile, but there is a good turning channel between them. The S. W. passage is not fit to enter with a large vessel at low water, but at high water you may enter with any vessel, keeping nearest the starboard hand as you go in, for there is a long point that lies about half a mile off from the larboard hand. Off this point you will find 6 or 7 feet of water at low tide. When you pass the point on your larboard hand you have the harbour open, and must bear up N. W. or W. N. W. and anchor well up the harbour in 5 or 6 fathoms, muddy bottom, where you may lie safe from all winds. If you are in a large vessel and make the Isle-au-haut, bring said island to bear W. S. W. and steer E. N. E. 10 leagues, which course and distance will carry you up the eastern passage going into Mount Desert: you must leave all the islands to the northward, and go to the northward of Mount Desert rock, which lies E. S. E. from the isle-au haut S. E. by S. from Long-Island, and S. from the Duck islands. When you bring the harbour to bear W. N. W. you may steer directly in, for you may go about with a first rate man of war in this passage. You may steer in this channel with a fair wind, from W. N. W. to W. by N. till you come to Langley's island, which lies about 1 league up the harbour and makes the starboard hand of the river that runs from the N. E. Be careful of this island, as there is a sunken ledge of rocks a-breast of it, near half a mile off. The river above-mentioned has water enough for any ship to go in, and is a safe harbour.

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Directions for sailing through Fox island passage.

When bound from the westward, and intend going through Fox island passage, bring * Owl's head island to bear W. by S. and then steer E. by N. from

* Owl's head, a head land on the west side of Penobscot bay, in the District of Maine. It has a good harbour on the larboard hand as you go to the eastward. The harbour makes with a deep cove, has 4 fathoms water, and a muddy bottom. It is open to the E. by N. and E. N. E. winds: but in all other winds you may lie safe. The tide of flood sets to the eastward, and the tide of ebb, S. W. through the Muscle Ridges.

Owl's head, 4 leagues distant. If you have a head wind and are obliged to go into the mouth of the bay, be careful of a ledge of rocks that bears from Crab Tree point S. W. or S. W. by S. distant 4 or 5 miles. This passage has rocks on both sides. Crab Tree point is on the larboard hand. It is on the northern Fox Island, and there is a long point of rocks near 1 league to the S. W. of it. This passage is not fit to enter in the night, unless you are well acquainted. When you get in, bring Crab Tree point to bear W. by S. and steer E. by N. about 3 leagues, which will bring you to Young's narrow. In steering this course you will make 2 large bare rocks, called the sugar leaves, which you may go on either side of, but to follow your directions, you must leave them on your starboard hand, and also be careful of a ledge that lies about north $\frac{1}{2}$ of a mile from them. The entrance to Young's point is narrow at low water, off which lies a ledge of rocks which are covered at high water. There is also a quantity of sunken rocks at the larboard hand, near a mile to the W. N. W. which lie off the Dumplins. These Dumplins are 3 islands which you leave on your larboard hand. Your course in this passage is E. S. E. and W. N. W. keeping your starboard hand on board. When you pass this point on your starboard hand, you must keep your starboard hand on board, and steer E. S. E. about 2 miles, when you will make Deep Cove on your starboard hand which lies to the eastward of a very high bluff of rocks. If you have neither cables nor anchors, you may run into said cove, or secure your vessel with the main or fore sheet, or come to anchor in 7 fathoms water, off the said cove. There the flood meets, one from the W. N. W. and the other from the E. N. E. which makes an eddy against this cove and high land: here you may ride safe with any wind. When you leave this place, and are bound to the eastward, you steer E. S. E. and keep your starboard hand on board till you come up to a clear spot of land where the trees have been cut off. As soon as said spot bears W. S. W. you steer E. N. E. for the middle narrows. When you draw near the narrows you will see 2 large white rocks in the middle of the passage, unless at high water, at which time they are covered about 1 hour, but may be seen at all other times of tide. You may go on either side, but the deepest water is at the southward of them. Continue your course E. N. E. about 1 league, when you must keep your starboard hand on board as there are several sunken rocks and ledges on your larboard hand which are covered at high water. You will make the eastern narrows on your starboard hand, and as soon as you bring it to bear S. S. E. you may run through, where you will have a fine harbour which is safe to ride in with all winds except at E. N. E. but you may remain in the west passage with the wind at E. N. E. or anchor at the northward of a bare island, that you will see on your starboard hand as you go back to the westward. When you pass the eastern passage of Fox island, you must steer E. N. E. about 4 miles, which course will carry you into a large bay that lies between Fox island and the Isle-au-haut. This bay lies N. and S. and about 4 leagues E. and W. When you get into this bay from the above-mentioned passage, and are bound to the eastward of Isle-au-haut, you may steer E. S. E. 6 leagues, which course will carry you to the southward of the Isle-au-haut.

[N. B. When you come from the westward and pass the island of Manhegin and the entrance of Penobscot bay, you may steer E. N. E. which course will carry you between the Fox islands and Mantinicus islands, leaving all the Fox islands on your larboard hand; but bring the Isle-au-haut to bear W. N. W. and steer E. N. E. 7 leagues to Long island which you leave on your larboard hand. If you are bound to Blue hill bay or Union river, as soon as you pass Long island you will open a large sound to the N. N. W. which course you are to steer 7 leagues, when you will be up with Robertson's island, leaving the * Ship and Barge on your larboard hand. Robertson's island is the only island near that place that has a house on it. The south part of the island is clear of trees, on which the house stands. When you come near the south part of the island, give it a birth of $\frac{1}{2}$ of a mile, as there are several sunken rocks off said point. When you bring this island to bear from

* The Ship is an island that has three trees on it, and appears like a ship at a distance and the Barge is a dry rock which appears like a barge.

S. W. to N. W. you may anchor in 6 or 7 fathoms water, muddy bottem; but if you are bound to Blue hill bay, you may stand to the northward direct for the Blue hills, which you may see 10 or 15 leagues off. If you are bound for Union river, you had better take a pilot at Robertson's island, for it is not fit for a stranger to go without one.

*
Directions for White Head.

VESSELS bound from the southward and intending to fall in with White Head light house, (which contains a fixed light) should endeavour to take their departure from the high land of Cape-Cod, on which is a light-house as more particularly described in page 41, from which, to Manheigin, the course is N. N. E. $\frac{1}{4}$ E. distant $35\frac{1}{2}$ leagues. The shore round Manheigin is bold, with good water on all sides, having no shoals or sunken rocks about it: there are some dry islands and ledges on the north side, but they are bold and good water all among them. From Manheigin to White Head light, the course is N. E. distant about 7 leagues, with a fair open sound. There is a small ledge lies about half a mile from White Head light, bearing S. S. E. which is just out of water at common tides; at low water you pass between this ledge and the light to go in the Muscle ledge channel or into the harbour. You continue your course N. E. by the light about $\frac{3}{4}$ of a mile, when you will open the harbour on your larboard hand between a small ledgy island next the light, and a high white island with some spruce trees on it. When you open the harbour about N. W. by W. you will sail on till you pass all the ledges on your larboard hand, and anchor in about 5 or 6 fathoms good holding ground.

Vessels of 60 or 70 tons may double close around the head of the light and anchor right abreast of the store. This is called Seal Harbour. Vessels taken with calm and ebb tide, may anchor any where off the light in from 12 to 20 fathoms water. If the wind takes you at N. E. and ebb tide, that you cannot get into Seal Harbour, you may run into Tennant Harbour, which bears W. by S. about 4 miles distant. You will continue your W. by S. course till the first house on the starboard hand bears N. N. W. when you may anchor in about 4 or 5 fathoms water, good ground.

*
Directions from Tennant Harbour to the Muscle Ridges.

IN sailing from this harbour you may steer E. by N. 1 league to White head light house, (which contains a fixed light) but be careful not to haul in for it till it bears N. E. as there is a large ledge of rocks bearing about W. N. W. from said head, 1 mile distant; but within it, a pistol shot from the shore is safe navigation. There is a good harbour called Seal harbour, on your larboard hand as you pass this head, (bound to the eastward) where you may lie safe from all winds. In going in you must give the larboard hand a birth as there is a sunken ledge, which extends about $\frac{2}{3}$ across the mouth of the harbour, that breaks when there is any sea, unless at high water.

Your course from White head is N. E. to Ash point or island, 1 league distant, which has a large rock to the S. W. of it, about $\frac{1}{2}$ a mile distant, which you must leave on your larboard hand. It is not in the way except you are obliged to go about. When you haul round this island, give it a small birth, and steer N. N. E. or N. E. by N. for the Owl's head, leaving 2 islands on your starboard hand: but when you draw near the larboard shore, you steer about E. N. E. for the Owl's head, which has a good harbour on the larboard hand as you go to the eastward. This harbour makes with a deep cove. You may bring a rocky point that lies on your starboard hand to bear N. E. and a ledge of rocks that lie without said point to bear E. N. E. and anchor in 4 fathoms, muddy bottom.

This harbour is open to the wind at E. by N. and E. N. E. but in all other winds you are safe. The tide of flood sets to the eastward, and the tide of ebb S. W. through the Muscle Ridges.

If it is night when you come to White head, you had better not attempt going through the Muscle Ridges. Your best way is to go by * Two Bush island, which you must leave on your starboard hand, keeping your course E. N. E. or N. E. by E.

If you are in a large vessel, your best way is to go in this passage, as it is the most safe. You must follow your course, as above directed, about 2 leagues, when you will have Penobscot bay open, and then you may direct your course to either side of Long island. If you go to the westward, your course is N. N. E. to Great Spruce head, which having passed 7 leagues, your course is N. E. by N. 5 leagues to Old Fort point. In steering said course you will leave Belfast bay and Brigadier's island on your larboard hand, which island has a good harbour, and if you mean to go into it you must leave it on your larboard hand and steer in about N. or N. by W. You may run up above this island, and anchor on the starboard hand, if the wind is to the eastward; but if to the westward or S. W. you must not. There is a bar that lies from this island to the main land, which is covered at high water. There is also a good harbour to the westward of this island, called Long cove. If you turn into either of these harbours, you must be careful of some rocks that lie to the southward of this island, more than $\frac{1}{2}$ a mile from the main land. But in going to Penobscot, proceed as above, and keep your larboard hand on board. When you pass this island for the Old Fort point, which has no trees on it, you must observe before you come to it, that a large ledge of rocks lies about $\frac{1}{4}$ of a mile to the E. S. E. of it, which is covered at high water, but bare at half tide. You may go within a cable's length of Old Fort point, in smooth water. These rocks may be discovered when the wind blows.

If you are bound up Penobscot river from Old Fort point, with the tide of ebb, and the wind a-head, you may make a good harbour in the east river, which lies about E. N. E. from Old Fort point about 1 league. This river lies to the southwestward of Orphan island, in which place you will lie safe from all winds, and anchor in 6 or 7 fathoms, good holding ground, Orphan island is a large island, which you are to leave on your starboard hand, and sundry rocks on your larboard hand, which are above water. When you pass Orphan island you may anchor to the N. W. of it, on the starboard hand, as you go through; but if wind and tide are in your favour, you may proceed up to Marsh bay, keeping the larboard hand best on board. Marsh bay is about 2 leagues from Orphan island. When you pass Marsh bay you may keep in the middle of the river, and you have neither rocks nor shoals until you get up to the falls. You have no particular course in going up this river, but may sometimes go to the westward of N. and sometimes to the eastward of N.

When you enter Penobscot bay and are bound to the eastward of Long island, you must steer N. E. by N. leaving Long island on your larboard hand, which course will carry you up to Castine. If you intend going into this harbour, as soon as it bears E. N. E. you may run in, steering E. N. E. keeping the middle of the channel until you pass the first island, giving it a birth of $\frac{1}{2}$ a mile; then haul to the southward until the island bears W. S. W. when you may anchor in 8 or 10 fathoms, muddy bottom, and lie safe from all wind.

In going into the harbour of Castine, you leave 3 islands on your starboard hand; but if you are bound up Penobscot river, you must steer north, leaving the ledge of rocks off the Old Fort point on your larboard hand; then follow the same directions you have for running into Penobscot river, which will carry you up to the Falls. The tide ebbs and flows, at full and change, about 10 or 11 feet.

Directions from Penmequid Point to Bass Harbour.

WHEN you pass Penmequid point, bring it to bear W. S. W. and steer E. N. E. 3 leagues, which course and distance will carry you into George's river. In

* This island called Two bush island, is a round barren island, and has but one bush on it but formerly had two.

steering this course you will pass New harbour ledges, on which are 5 feet at low water; these ledges lie 1 league from Penmequid point, and are left on your larboard hand. Continuing your course will carry you between east and west Egg rocks, leaving Franklin's island light on your starboard hand; but be careful not to go to the northward of said course, for there are several sunken ledges to the westward of the Egg rocks, which you leave on your larboard hand. But if it should be in the night, and you are to the eastward of Dams Cove islands, bring Seguin light to bear W. $\frac{1}{2}$ N. and steer E. $\frac{1}{2}$ S. and you will go clear of Bantam ledge, which lies east $3\frac{1}{2}$ leagues from Seguin: continue this course till you are 5 leagues from the light, (or till the light is nearly run down,) then haul up north till you make Penmequid point, from whence you may steer for George's river, as before directed. If you should meet with the wind a-head, you may anchor off Gay's cove, taking care to avoid a sunken ledge, which lies E. from Gay's cove, near the middle of the channel, and has 4 feet water at low water. This ledge must be left on your larboard hand, keeping *Caldwell's island close on board. Gay's cove lies on your larboard hand, about 3 miles to the E. N. E. of Franklin's island light. You may know this cove, as Gay's house and barn lie to the N. W. of it. But if you are bound through Herring Gut, bring †Capt. Henderson's house to bear N. N. W. and steer S. S. E. for Herring gut. This Herring gut has a bar from side to side, but you may go over it at 2 hours flood, keeping your larboard hand best on board. As you come on the bar, you will see a large rock on your starboard hand, and the deepest water is within a cable's length of the rock; your course over the bar is S. S. E. You may anchor to the N. W. of the bar, in 4 or 5 fathoms, muddy bottom, and wait for the tide. The tide of flood sets to the northward, and the ebb to the southward.

When you go out of this harbour, and bound to the eastward, be careful and give the larboard hand a good birth, for there are two ledges of rocks on the same hand of the eastern point, which are under water and lie off about a cable's length. When you are clear of these ledges, you may steer E. by S. or E. S. E. one mile to the barren island, which you leave on the larboard, and 3 or 4 islands or ledges on the starboard hand. When you pass these ledges and Musquito islands, if bound to White Head, you may steer N. E. by E. 2 leagues, and when you bring said head to bear N. E. run for it, but when you pass the S. W. white head, leave it on your larboard hand, and be careful of a sunken rock that lies S. E. from the eastern White Head, about one cable's length distant. Your course through to the eastward is N. E. and to the westward S. W. keeping near the middle of the passage. Before you come up with Ash point, you must be careful of a sunken rock, which lies off the point about $\frac{1}{2}$ of the passage, which has not more than 8 feet water at low water. But if you should go through this passage in the night, keep Potatoe island which is right against Ash island, about S. S. W. from it, and bare of trees, which you leave on your starboard hand, best on board. When you pass Potatoe island, and are bound into Owl's head, your course is N. N. E. about 2 miles, which will leave 2 islands on the starboard hand. When you open the passage to Owl's head, and bound to Edgemavoggen reach, your course is N. E. by N. till you pass the Lime islands, which you leave on your larboard hand. Continue said course till you make a large bare rock on your starboard hand, and a little round island to the eastward, on the same hand, which is covered with trees. Continue your course to the N. E. and you will make a large island on your starboard hand: When you pass this island, you have the passage open to Buck's harbour: continue your course N. E. till you pass by all the islands to the southward and northward. In the day time you may see Blue hill bearing E. N. E. over all the land. This passage is safe to go through with a first rate man of war. When you come within two miles of the Reach, you will make a small island on your starboard hand, which has a sunken rock to the northward of it. Your safest way is to keep the mid-

* Caldwell's island lies on the east side of George's river, about $9\frac{1}{2}$ miles from the entrance of the river: it is a high round island, covered with trees.

† Captain Henderson's house is white and his store red, and both lie on the larboard hand.

dle of the passage, as there is a sunken rock or ledge on the larboard hand, that lies E. by S. from an island which you leave on your larboard hand, about half a mile distant. If you want to make a harbour, you may go into Buck's harbour by a N. E. or N. E. by N. course. When you come into this harbour, (which is 12 leagues from Owl's head,) you must leave an island, covered with young birch trees, on your starboard hand, steering N. N. W. and when you get to the northward of said island, you steer E. S. E. till you bring it to bear S. S. W. where you will be land-locked from all winds, in 4 or 5 fathoms soft bottom.

When you leave Buck's harbour, and bound to the eastward, you steer S. E. till you come to a large rock and 4 islands, which you leave on your larboard hand, keeping the said rock and islands best on board, for there is a sunken ledge that lies S. S. W. from them. You will make a black island on your starboard hand with burnt trees on it. This ledge lies N. N. E. from said island, near the middle of the passage, but keeping the eastern shore best on board, you will go clear of it. When you have passed this ledge, you leave two islands on your starboard, and 2 or 3 on your larboard hand. Continue your course to the S. E. till you make 2 islands, between which and Buck's harbour the course is S. E. and N. W. 6 leagues. To the eastward you may go between both islands, steering E. by S. 1 league, which course will carry you up with Trum cap, which island has a bar of rocks, that lies near half a mile to the northward; but if you have a head wind, and are obliged to turn through, you will observe the channel is 2 miles wide to Channel rock, which is always above water.

When you leave this Trum cap, steer E. by S. which will carry you between the Ship and Barge, and 3 islands which you leave on your larboard hand, which are covered with large rock maple trees. The Barge is a bare rock, which you leave on your starboard hand; but there is a rock about a cable's length to the northward of the Barge. Continue your course E. by S. for Bass harbour, distance from Trum cap, 5 leagues; but you must have some regard to the tide of ebb, which sets very strong to the S. S. E. and the tide of flood to the N. N. W. If you are bound into Bass harbour, you keep Rich's point within a cable's length which point you leave on your larboard hand, for there is a large ledge of rocks that lie off about half a mile, which is bare at half tide, and bears S. E. from Rich's barn, and S. by W. from the entrance of Bass harbour. You give the larboard hand a good birth in going to Bass harbour, in entering which you must give both sides a birth, for at low water it is shoal. When you get into this harbour, anchor on the larboard hand, with a cove to the westward of you, in 3 or 4 fathoms, muddy bottom.

Directions from Bass Harbour.

WHEN you leave this harbour, bound to the eastward, steer out S. W. till you bring Bass harbour bar to bear S. S. E. then run S. S. E. keeping the larboard hand best on board. This bar has not water enough for a loaded vessel before half tide; but a light vessel may go over at low water, keeping the larboard hand best on board. When you get over this bar, you steer E. by S. till you bring the S. W. entrance of Mount Desert to bear N. E. then you may run N. E. leaving Cranberry island on your starboard hand. But this passage is shoal at low water, and not fit for loaded vessels to go through, but at full tide there is water enough, keeping the middle of the passage. Continue your course to the N. E. till you pass Cranberry island; then you may steer E. S. E. and anchor between the two Cranberry islands, where you will be safe from easterly or S. W. winds. You may lie in from 4 to 7 fathom, good holding ground.

When you leave this port, bound to the eastward, you steer E. by S. till you get up with Baker's island, which lies to the eastward of the Cranberry islands; then you steer E. by N. 4 leagues to Schoodock island. When you pass said island, and are bound to Goldsborough, you must steer N. E. about 5 leagues, and keep that course till you bring Goldsborough harbour to bear N. N. W. then you must leave three islands on your larboard, and one on your starboard hand, and run into the harbour, where you may lie safe from all winds, and anchor in 5 or 6 fathoms.

Directions for Dyer's Bay, &c.

THIS harbour lies a little to the eastward of Goldsborough. When you make Tetitmenan, bound to Dyer's bay, leave Tetitmenan on your starboard hand, and steer north for the eastern head. You leave a large dry dock on your larboard hand, which, when you pass, you will see a small island, covered with trees, which you leave on your starboard hand; then haul round said island, where you will be safe from all winds.

Directions from Scodock Island.

WHEN you come from the westward, and bound to Tetitmenan, you pass Scodock island; steer E. N. E. from Scodock island, 5 leagues, to Tetitmenan.

Directions from Tetitmenan to Ladle Island.

WHEN you pass Tetitmenan, bring it to bear S. W. and steer N. E. about $4\frac{1}{2}$ leagues, which course will carry you to Ladle island. This isle has a remarkable appearance, being formed exactly like a ladle, and has a large black rock to the S. W. a little distance from the island. You may go any side of this island, but the best channel is to the S. E. of it.

Directions for Cape Splitt Harbour.

WHEN you pass Tetitmenan, bring it to bear S. W. $\frac{1}{2}$ S. and steer N. E. $\frac{1}{2}$ N. for Cape Splitt, distance 5 leagues, which course will carry you safe into the harbour. In steering said course, you will make a black rock, which you leave on your starboard hand, distance 1 mile from Cape Splitt. This harbour is safe from all winds but S. W. which blows right in; but if you anchor in a cove on the starboard side, and moor N. W. and S. E. you will lie safe from all winds.

Directions for Pleasant River.

WHEN you come from the westward, and bound to Pleasant River, in passing by Tetitmenan, bring it to bear S. W. by S. and steer N. E. by N. 5 leagues distance. In steering said course, if it is clear weather, you will see Capt. Wasse's house open between the island and main land; but this passage will not do at low water. You must leave this island (and a high dry ledge of rocks that lie to the westward of the island) on your starboard hand; when you pass the bare ledge, you will see a bare isle, which you leave on your starboard hand; then you may haul up for Capt. Wasse's house and anchor, and take a pilot for Pleasant river, as it is not safe going without one, except you are well acquainted.

Narrow-guages is one mile to the westward of Pleasant river, too difficult to be described, as there are sundry small islands at the mouth of the harbour or bay. The best way for a stranger is to go into Cape Splitt harbour, and get a pilot, as there is no difficulty in going into Cape Splitt in the day time, keeping the larboard hand best on board.

Directions for Moose Peck Reach.

WHEN you come from the westward, and pass Ladle island on your larboard hand, steer N. E. by N. for Tibbet's island, which you leave on your larboard hand. When you come to the east end of said island, give it a good birth, for at low water there is a ledge of rocks that lie a cable's length to the S. E. of said island. When you pass this island, and bring Moose Peck reach open, you may steer east for Mr. Beal's house, but you must keep the starboard hand best on board, for there is a rock that lies about the middle of the sound, which has not above 2 feet of water on it at low water. You may anchor to the westward of Mr. Beal's house.

Directions going through Moose Peck Reach.

WHEN bound to the eastward, over Moose Peck bar, which you must not cross before 2 hours flood, you steer for * Kelly's coffee-house, which lies on the larboard hand as you go to the eastward. When you are entering on the bar, you will bring a bushy tree right against Kelly's house, which stands on the point. Your course over the bar is east. You leave the Virgin's breasts on your larboard hand; but if you are bound to Chandler's river, you will leave the Virgin's breast on your starboard hand, and Rogue's island on the same hand. There is a muddy bar that lies between Rogue's island and the main land, but has water enough on it at 2 hours flood. Rogue's island has a good harbour at the N. W. of it safe from all easterly winds, and a small distance from Chandler's river.

When you go over Moose Peck bar, bound to Machias, you leave the Virgin's breasts on your larboard hand, keeping your course east, and Ragged arse on your starboard hand; you must keep Bibby's island open to the southward of Ragged arse. [N. B. This Ragged arse is a bare rock, which you leave on your starboard, but you may leave it on your larboard hand, and steer E. S. E. for Libby's island.]

Directions for sailing into George's River.

WHEN bound from the westward to George's river, you must go to the southward of Danis-cove i-lands, and steer N. N. E. 3 leagues from Pennequid point, which lies about 4 leagues N. W. of Manheigin island; and when said point bears W. S. W. you must steer E. N. E. 3 leagues for the river. In steering the above courses, you will see Franklin Island light on your starboard hand. Before you come up with the light you will make the western Egg rock, which is high, and may be seen 2 or 3 leagues distant, and must be left on your larboard hand. When you come near this rock, you will see the eastern Egg rock, which is a dry rock on your starboard hand, but you may continue your E. N. E. course without danger till past the light, and it bears W. S. W. which course you continue till up with Pleasant point, which lies on the larboard hand, about 4 leagues distant. If you have a head wind and are obliged to turn to windward, you must not, after passing Pennequid point, stand to the northward of the western Egg rock, as there are 2 sunken ledges, called New Harbour ledges, between the said point and rock, which you must leave on your larboard hand. These ledges are never bare, but at low water; with the wind to the eastward, the water breaks over them very high.

Other directions for sailing into George's river are, After you have passed Franklin island light, steer E. N. E. about 2½ leagues, keeping in the middle of the river, which course and distance will carry you in sight of Capt. Henderson's house and store (the house is white and the store is red) together with a small wharf on your larboard hand, close to the river. After you have passed this house, you must keep the starboard shore best on board, as there is a ledge of rocks on your larboard hand extending two-thirds across the river. You will also see 2 small houses and 2 barns on your starboard hand, which you may run within a quarter of a mile of.

In running up or down this river, you must not shut in Capt. Henderson's house with the north shore, until you have passed the above mentioned ledge.† When you are up with a large broad cove on your larboard hand you may be certain you are to the eastward of the ledge, and you will be also in sight of 3 large buildings, the largest of which is a spacious house, built by the late Henry Knox, Esq. When said house bears N. N. E. you may steer N. E. by N. and run said course till within a musket shot of it. The best time for a stranger to go up this river is at low water, as it is very crooked and the flat on each side can then be seen. The river runs from Franklin's island from E. N. E. to N. E. by N. about 5 or 6 leagues distant.

* Mr. Kelly's house lies on the N. E. part of Moose Peck reach.

† The best marks to clear this ledge are to shut in Caldwell's island with the eastern part of McCobb's Narrows.

N. B. When you go to the eastward of Damiscove island, you bring Seguin's light house to bear W. S. W. and steer E. N. E. for George's river.

Directions from Townsend to Manheigin.

WHEN you take your departure from Squirrel island, you steer E. S. E. for the island of Manheigin, (on the north side of which are some small dry islands, and ledges, but good water between them and the other sides of the island) keeping that course until the passage between George's islands and Manheigin bears N. E. You may then steer N. E. about 7 leagues, through a fair open sound, for White head light, leaving George's islands (which are 3 in number) on your larboard hand. The eastern island has no trees on it. There are 2 dangerous rocks bearing due south from the middle of the middle island, called the Old Man and the Old Woman, which are bare before low water. They lie about 1 mile from the shore, and at high water, when the wind blows off the land, they do not appear. If you are bound to the eastward, and the wind should take you a-head, when you are between Manheigin and George's islands, you bring the middle of Manheigin to bear S. and run in N. which course will carry you between the eastern George's island and the middle island. You may run as near as you wish to the eastern island, but the middle island has a ledge of rocks that lie to the eastward of it, which are always dry, which you are to leave on your larboard hand. When you get to the northward of this island, you must haul to the westward and run up between it and the western island, so as to bring the body of the middle island to bear N. E. of you. Here you moor your vessel if you stay any time.

If you are bound to the eastward from this island you may go to the northward of the eastern island, but you must be careful of a ledge that lies to the eastward of said island, which you must leave on your starboard hand; and when you bring Manheigin to bear S. W. you may go N. E. If night should come on, or the wind a-head, you may haul up about N. E. by N. for Tenant's harbour, which lies about 8 leagues from George's islands. You cannot miss this harbour in the day time. You will make Musqueto harbour, which lies between 2 islands covered with spruce trees. The entrance of the harbour is north. When you have passed this harbour, you will run about 2 miles, keeping your course N. E. by N. when you will pass by an island with burnt trees on it, which you leave on your larboard hand, and 2 islands on your starboard hand, which also have burnt trees on them; then you must bring the harbour to bear W. N. W. before you enter. This is a good harbour provided you have neither cables or anchors, as you may save your vessel by running up to the head of it, on muddy bottom, which will be dry at low water.

Directions for Townsend Harbour.

IF you come from the westward and make S. guine island, you must leave it on your larboard hand, give it a birth of about half a mile, and steer N. E. about 2 leagues, which course will carry you to Squirrel island; if it is day time you will see 2 large rocks (called the Cuckolds) on your larboard hand, to which you give a small birth, and when you pass them you will make Squirrel island, which you leave on your starboard hand, directing your course N. $\frac{1}{2}$ W. about 4 or 5 miles. The entrance of Townsend is narrow, and there is a small rocky island that is very low, which you leave on your starboard hand; then you may haul to the N. E. or N. E. by E. but in a dark night and thick weather, I would recommend to anchor under the lee of Squirrel island where you may make a good harbour with any wind that blows, as you may go round this island with any vessel whatever; but in the day time there is not the least danger in going in, only follow the above directions, and you may anchor in the N. E. or the S. W. side, but the N. E. harbour is the best and safest with all winds. In going to the N. E. harbour you will leave a small island on your larboard hand, which bring to bear S. W. and you will be safe from all winds, and if you lose your cables and anchors, you may run your vessel up to the head of the harbour

If you fall into the eastward and make the island of Manheigin, bring it to bear E. S. E. and run W. N. W. for Townsend 5 leagues distant. In running to this harbour from the eastward, you leave all Damiscove islands on your larboard hand. The harbour is bold, but you must be careful if you should go about, not to stand too near the starboard hand, which lies near Damoriscotti river. When you pass Fisherman's island, you continue your course W. N. W. for the middle of Squirrel island, which you will make right a head, as there are several ledges of sunken rock on your starboard hand. When you pass Damoriscotti river, you may go within a quarter of a mile of Squirrel islands, but with a fair wind give it a birth of half a mile, and then steer N. W. for the harbour, and follow the directions you have for going into the harbour of Townsend, where you may lie safe from all winds.

Directions for Kennebeck and Sheepscut Rivers.

IF you come from the westward, bring Cape Elizabeth (on which is a pyramid, as fully described in page 120) to bear west, and steer east for Seguine island, 10 leagues. If you are bound into Kennebeck river,* you must steer E. $\frac{1}{2}$ N. and leave Seguine island on your starboard hand giving it a birth of about half a mile, and as soon as you bring said island to bear south, you steer due north, which course will carry you into Kennebeck river. You must have regard to the tide, for the tide of ebb sets out very strong due south, right on Seguine island, therefore if you have not a good breeze of wind you cannot stem the tide, as it sets 4 or 5 knots an hour. When you come into the entrance of Kennebeck river, your course is N. W. to the Sugar loaves, a quarter of a mile distant. Leave the Sugar loaves on your starboard hand, from which your course is N. N. W. about 2 miles to Cock's head; this Cock's head is a very high bluff of rocks, which you leave on your larboard hand; but be careful of a shoal flat that lies on your larboard hand, before you come to Cock's head. Keep nearest to the starboard shore. In case the wind and tide should be against you, you may anchor to the southward of Perkin's island which lies on the starboard hand, where you may lie safe after bringing the island to bear north of you; but with a fair wind and tide you may proceed to Parker's flats, which lie a little above Cock's head. This river is not to be attempted above Parker's flats, on account of the strength of the tide and crookedness of the channel, unless you are well acquainted, or have a pilot.

If you are bound to Sheepscut river, from the westward, and make the island of Seguine, you may leave the island on your starboard hand, give it a birth of half a mile, when you pass it to the eastward you must bring it to bear S. W. by S. and steer N. E. by N. which course will carry you to Ebenicook harbour, distant 3 leagues, leaving 3 dry ledges on your starboard hand, and one on your larboard; this harbour is very narrow at the entrance, but makes a large bason when you get into it; in the entrance it lies E. N. E. You cannot get in here with a N. E. or easterly wind, but must have the wind south or westerly: after you get into this harbour you must haul up N. E. or N. E. by N. for there are several sunken rocks on the starboard hand as you go in, which you are to avoid. The best anchorage is against Capt. Smith's wharf, where are 4 fathoms muddy bottom: and you will lie safe from all winds. But if you are bound up Sheepscut river in a large vessel, and come from the westward, you must go to the southward of Seguine island, steering about N. E. or N. E. by E. 1 league, and when the river bears north, or north a little westerly, you may run north, and must keep the starboard hand best on board; there are many rocks and ledges, some of them above, and some under water, which are all to the eastward of Seguine. When you get up as high as Ebenicook you leave the two Mark islands on your larboard hand, keeping your course north, a little easterly, but if

* This is one of the principal rivers in the district of Maine. Thirty miles from the Chop's Swan island, 7 miles long, divides the water of the river, on both sides of which it is navigable but the channel on the east side of it is most used.

you only come here to make a harbour, when you get up to Capt. Hodgson's you will see a bare ledge on your larboard hand, if it is low water, which is covered at high water; you may anchor in 8 fathoms to the northward of it.

If you want to go up to Wiscasset point, you must keep your starboard hand best aboard, north easterly, till you come to Cross river, which you leave on your starboard hand. You will not attempt to go up to Wiscasset point with a head wind and the tide of ebb, for it is 3 leagues from Cross river; but when you have a fair wind and tide, you may proceed without fear. This river is narrow and lies more to the westward; when you are about a mile and a half up, you must keep your larboard hand best on board, for there is a ledge of rocks which reaches near half way across the river, which is on your starboard hand, and the rock near the middle is covered at high water, but may be seen two hours before. The river runs straight to Decker's narrows, then turns round to the westward; when you enter these narrows you may see the town. In case you should go up in the night, you must be careful of 2 large rocks that lie W. S. W. of these narrows; the tide of flood sets very strong for them, and they are never covered. you may go on either side of them, and may anchor in 10 or 12 fathoms of water, muddy bottom.

It is high water here, at full and change of the moon, about three quarters of an hour sooner than at Boston.

Directions for sailing into New Meadows.

THIS river bears N. E. 8 leagues distant from the Pyramid on Cape Elizabeth, and about 1 league from Small point. If you should fall into this bay with the wind at S. E. or S. S. E. and bound to the eastward, you may make a good harbour in the above river. In standing to the northward you will have a large round island on your starboard hand, covered with spruce trees, together with two large rocks, one called the Brown Cow, and the other the White Bull, which are some distance from each other. You must leave the Brown Cow on your starboard, and the White Bull on your larboard hand, the latter of which you may go within a cable's length of, and when you have passed it, must stand over for Horse island, that lies on the starboard, which has a house on it, that you may go within a quarter of a mile of. To the westward of the island lies a large rock, which is covered at high water, but bare at half tide; you may go on either side of it when it is in sight, but the widest passage is to the eastward. When you have passed this rock, steer N. by W. or N. N. W. which course will carry you up with a large island, called Bear island, which is covered with spruce and birch trees. When you have passed this island about one quarter of a mile, you may haul in for the starboard shore, and anchor in 5 or 6 fathoms water. This is the best place to anchor, with the wind at S. S. E. or East, but be careful of a ledge of rocks, that runs to the northward of this island, about half a mile off. You may anchor in this bay according as the wind may be; if it should be at the westward, you may anchor on the west side of the bay; and if to the eastward, anchor on the east side. If you have lost your cables and anchors there is a large cove on the starboard hand, about 2 miles from Bear island, bearing about N. which is sufficient to hold 30 or 40 sail of vessels. It is land-locked all round, so that no wind can damage a vessel after she gets into it.

Directions for Hussey's Sound.

IF you come from the eastward and make Seguin island, bring it to bear E. and steer W. for Hussey's sound, if you have a fair wind and day-light, as you have nothing but islands on your starboard hand. The tide of flood sets very strong in between these islands; when you get within 2 miles of Hussey's sound, you will make two islands, which have no trees on them, called Green islands—

you continue your course till you make Hussey's sound, bearing N. N. E. then you may steer in with your course N. N. E.

There is a large sound, called Broad sound, about half way between Seguine and Hussey's sound. You leave Merrikengek island on your starboard, and Half-way rock on your larboard hand—but this sound has several rocks under water, and is not fit for strangers to go into.

When you pass the two islands, after entering Hussey's sound, you leave three islands on your larboard, and two islands on your starboard hand; the northern island, on your starboard, is called Smith's island; when you pass said island about $\frac{1}{2}$ of a mile, you may haul away E. N. E. till you shut in said island to the S. E. then you may anchor in 8 or 9 fathoms, muddy bottom. Hog island to the S. W.—Basket island to the N. W.—Great Gabegue island to the N. E.—and Smith's island to the S. E. Here you may moor 200 sail of ships, safe from all winds; and when wind and tide serves, you may be out to sea in one hour.

Directions for Portland Harbour.

IN the summer of 1799, the harbour of Portland was buoyed out, which are to be observed as follows:—

In coming from the south-westward, when within half a mile of *Cape Elizabeth, the red buoy on Broad cove rock may be seen; it bears N. N. E. from the pitch of the cape, distance $1\frac{1}{2}$ mile, and lies in 24 feet water. When up with this buoy, leave it on the larboard hand, half a cable's length distant, and steer N. by E. $\frac{1}{2}$ E. 1 mile, which will carry you up with the white buoy on Trundy's reef, which lies in 16 feet water. Giving it the same birth as the other, you may then run N. by W. $\frac{1}{2}$ W. for Portland † light-house, 3 miles distant. When up

* A column or distinguishing land mark in the form of a Pyramid, has lately been erected on Cape Elizabeth, 1-8 of a mile N. W. from the south eastern extremity of the Cape—it is built of stone, the lower half painted white, the upper black—height 50 feet from the foundation, and 125 feet above the level of the sea.

Bearing, distance, &c. of several dangerous rocks near the entrance of Portland harbour.

The column bears from Portland light, S. 1° W. distant $4\frac{1}{2}$ miles.

From the column to the outer part of Trundy Reef, N. 20° E. distant $2\frac{1}{2}$ miles.

Do. to Broad Cove Rock, - - - - - N. 25° E. $1\frac{1}{2}$ do.

Do. to New Ledge, - - - - - N. 74° E. $6\frac{1}{2}$ do.

Do. to Alden's Rock, - - - - - S. 61° E. $3\frac{1}{2}$ do.

Do. to Taylor's reef, E. point, - - - - - S. 41° E. 1 do.

Do. to do. do. W. point, - - - - - S. 24° E. 1 do.

From S. E. point of the Cape to the outer part of Watt's ledge, which trends off from Richmond Island, is S. 42° W.

From Portland light to New Ledge - - - - - S. 67° E. $6\frac{1}{2}$ miles.

Do. to Alden's Rock, - - - - - S. 20° E. $6\frac{1}{2}$ do.

Do. to Trundy Reef - - - - - S. 15° E. $2\frac{1}{2}$ do.

Do. to Broad Cove Rock, - - - - - S. 9° E. $3\frac{1}{2}$ do.

The above bearings are by Compass. The variation ascertained at the same time to be 3° 30' west.

The following depths are calculated for low water Spring tides, Trundy's Reef, extends from the shore, the depth agreeable to the above bearing 15 feet.

Broad Cove Rock is nearly dry—There is a channel between it and the shore, with 4 fathoms water, sandy bottom.

Alden's Rock, depth 8 feet.

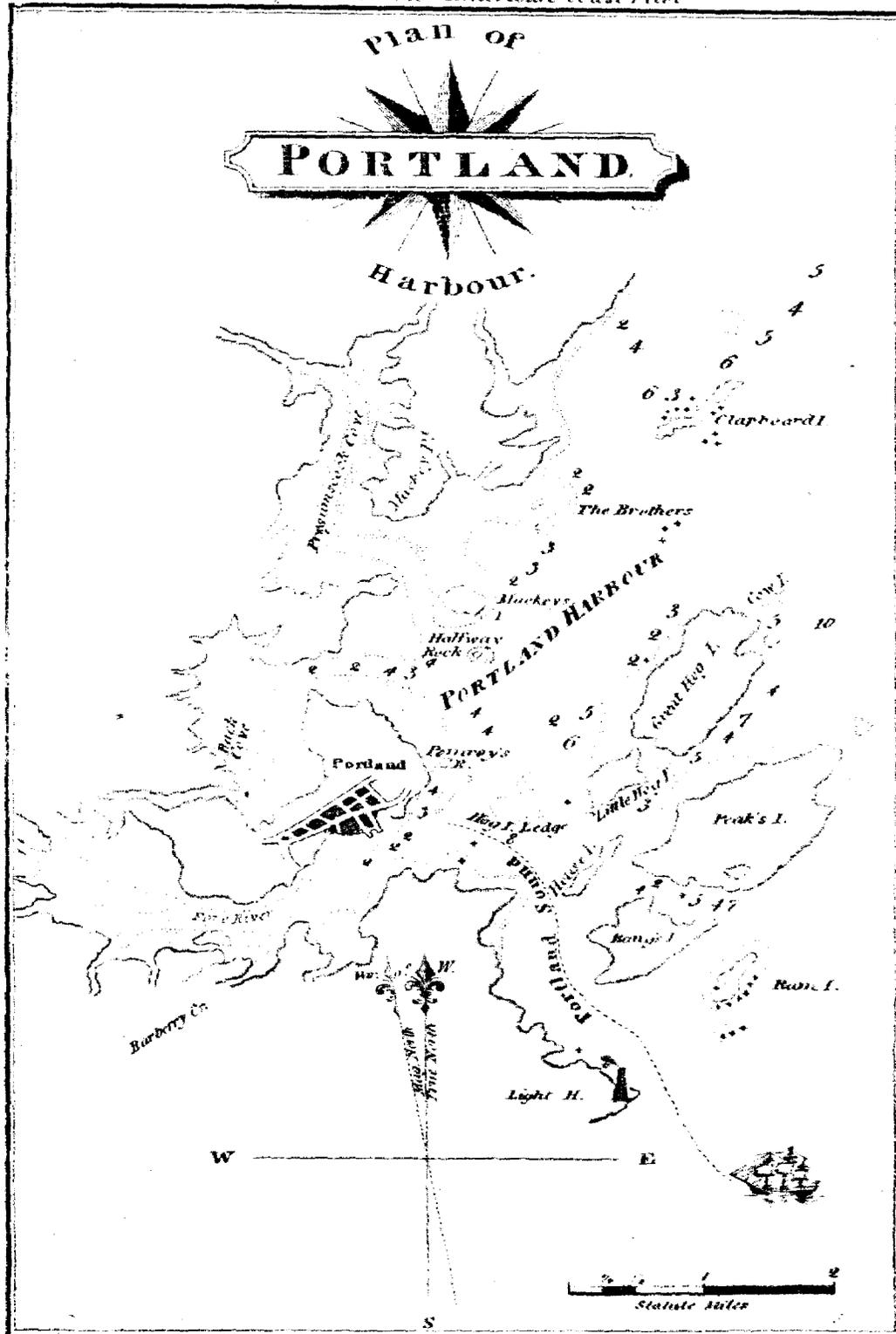
New Ledge extends about E. N. E. and W. S. W. $\frac{1}{2}$ of a mile. Depth 11 to 15 feet.

Taylor's Ledge extends E. N. E. and W. S. W. near $\frac{1}{2}$ of a mile; on the eastern end, 5 fathoms, western do. 15 feet.

There is also another small Rock, a cable's length within the latter, depth 15 or 16 feet—between these and the Cape there is a very good and safe channel, with 7, 8 and 9 fathoms, $\frac{1}{2}$ or $\frac{3}{4}$ of a mile from the shore.

† The light-house is on a point of land, called Portland head, at the entrance of the harbour. It is a stone edifice, 72 feet high, exclusive of the lantern, and stands in lat. 43° 59' N. long. 76° 12' W.

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with the head, on which the light house stands, give it a small birth, and steer N. by W. leaving Bangs' island on the starboard hand, till you come to House island, the S. W. point of which bears N. from the light house, distant almost 2 miles. Before you are up with this island, the black buoy on Spring point ledge may be seen; it bears N. W. by W. from the S. W. part of House island, distant half a mile, and lies in 14 feet water. [When up with this buoy, you open the town.] Giving it a small birth, you may haul up N. W. for the white buoy on Stanford's ledge; this buoy lies also in 14 feet water, and 1 mile distant from Spring point ledge buoy. Giving the white buoy a small birth, you may keep up midway the river and anchor opposite the town, where you please, in safety.

[N. B. All the before-mentioned buoys are to be left on the larboard hand, in coming in, and the depth of water put down, is at low water; the courses are by compass.]

There are also 2 small buoys, on 2 ledges in Whitehead passage, at the N. E. part of Bangs' island. This passage is narrow, and but seldom used with large vessels. By keeping midway between the 2 buoys, the red on the starboard, and the white on the larboard hand, in coming in, you will have not less than 5 fathoms water. After passing the buoys, keep midway the passage, and run 1 mile distance, which will carry you into Ship channel, the same as if you had passed the light-house.

NOTE. If by accident either of the buoys should be removed, the following directions for sailing into Portland Harbour will be found useful :

WHEN you come from the south-westward, and intend to go into Portland, give Cape Elizabeth (on which is a Pyramid as before described) a birth of half a mile, and steer N. N. E. until you bring Portland light house to bear N. N. W. when you must haul up N. N. W. if the wind will permit; but if you are in a large ship, and the wind at N. W. or W. N. W. your safest way is to continue your course N. N. E. which will carry you safe into Hussey's sound, allowing it to be tide of flood, as Portland sound is narrow, but bold between the light-house and Bangs island, which is on your starboard hand. If you should turn into Portland in the night, in standing to the south-westward you must go about as soon as the light bears N. N. W. and in standing to the eastward, you must go about as soon as the light bears W. N. W. for there is a ledge of rocks that bears S. by E. from Portland light-house, and also a low island, called Ram island, about east northerly, 1 mile distant from the light-house; but if you have a leading wind, you may go in without fear, keeping about middle of the channel way, and when abreast of the light, steer about N. by W. for House island, which you leave on your starboard hand; when you pass House island, bring it to bear S. E. by E. and steer N. W. by W. or W. N. W. with the tide of flood. In steering the above course, you will see a round bushy tree to the north of the town, and a house with a red roof, and one chimney; bring the tree to the west of the house, which course will carry you up the channel way, in 6 or 7 fathoms of water; but when you come abreast of the fort, which stands on a hill, haul away W. S. W. as there is a shoal bank on your starboard hand that has not more than 10 or 12 feet on it, at high water, which you are to avoid. Here you will be careful of 2 ledges of rocks, one called Spring point ledge, 2 miles N. by W. $\frac{1}{2}$ W. from the light-house, and the other 3 miles bearing N. by W. $\frac{1}{2}$ W. called Stanford's ledge, which has a buoy on it, and stretches off from your larboard hand, near half a mile in length. They lie to the S. W. of House island and are all bare at low water. If you are obliged to turn in here, they are much in the way, and when you are standing to the southward, be careful of them. The marks will do in the day time, but are of no service in the night. There is a pilot who generally attends here. This harbour is open to the wind at N. E. and E. N. E. If you should come in in a dark night, your best way is to go into Hog island road, which may be done by steering as follows:—When you pass the light-house, steer N. by W. until you pass Bangs' island, which you will leave on your starboard hand; in steering this course, you will make House isk-

and, which you will leave on your larboard hand; when you are between both of these islands, you steer N. E. by E. till you come to the second island on your starboard hand. If it is day time, you will see a large house on said island, and may anchor as soon as abreast of it, in 10 or 12 fathoms, muddy bottom.

If you should fall into the eastward of Portland, and make the island of Se-guine, bring said island to bear E. and steer W. which course you are to continue till you make Portland light to bear from N. W. to W. N. W. when you may run for it without fear.

N. B. You must have some regard to the tide of flood, which sets very strong between the islands to the eastward of Portland. [See the Plate.]

Notice to Masters of Vessels.

THOSE masters who sail from Portland, or ports adjacent, are informed, that from the OBSERVATORY, on Fort Hill, by means of the Telescope placed there, vessels approaching the coast may be discovered at 15 leagues distance; and their colours or private signals can be distinguished 8 leagues, if the weather should be clear and the colours hoisted, or suspended in such a manner as to prevent them fair to the Observatory. Should any need assistance, they will set their Ensign over their private signals; and may be assured, if they can be discerned, that their situation will be made known to their owners.

The Observatory bears N. N. W. $\frac{1}{4}$ W. from Portland light house, 4 miles distance; and these in range are a good mark to clear Alden's rock; which, keeping the above in range, you will be nearly three quarters of a mile to the eastward of it.

The Observatory is on an eminence 141 feet above high water mark; and the building 32 feet high, painted red, and the Telescope is placed near the top.

Boon Island.

BOON Island Light-house bears N. W. $\frac{1}{2}$ N. from Cape Neddock, distant 2 leagues. It is built on the west part of the island, where the monument formerly stood; the edifice is stone: Two other buildings are erected near it; one for a dwelling-house; the other for an oil house. From Boon island to Boon island Rock, the course is east distant 1 league. From Agamenticus Hill, Boon island bears S. E. distant 5 or 6 leagues; and when you come in from sea, and make Agamenticus Hill, bearing N. W. by N. you are then to the westward of Boon island ledge; but when said hill bears N. W. by W. you may be sure you are to the eastward of it.

Remarks on the White Hills.

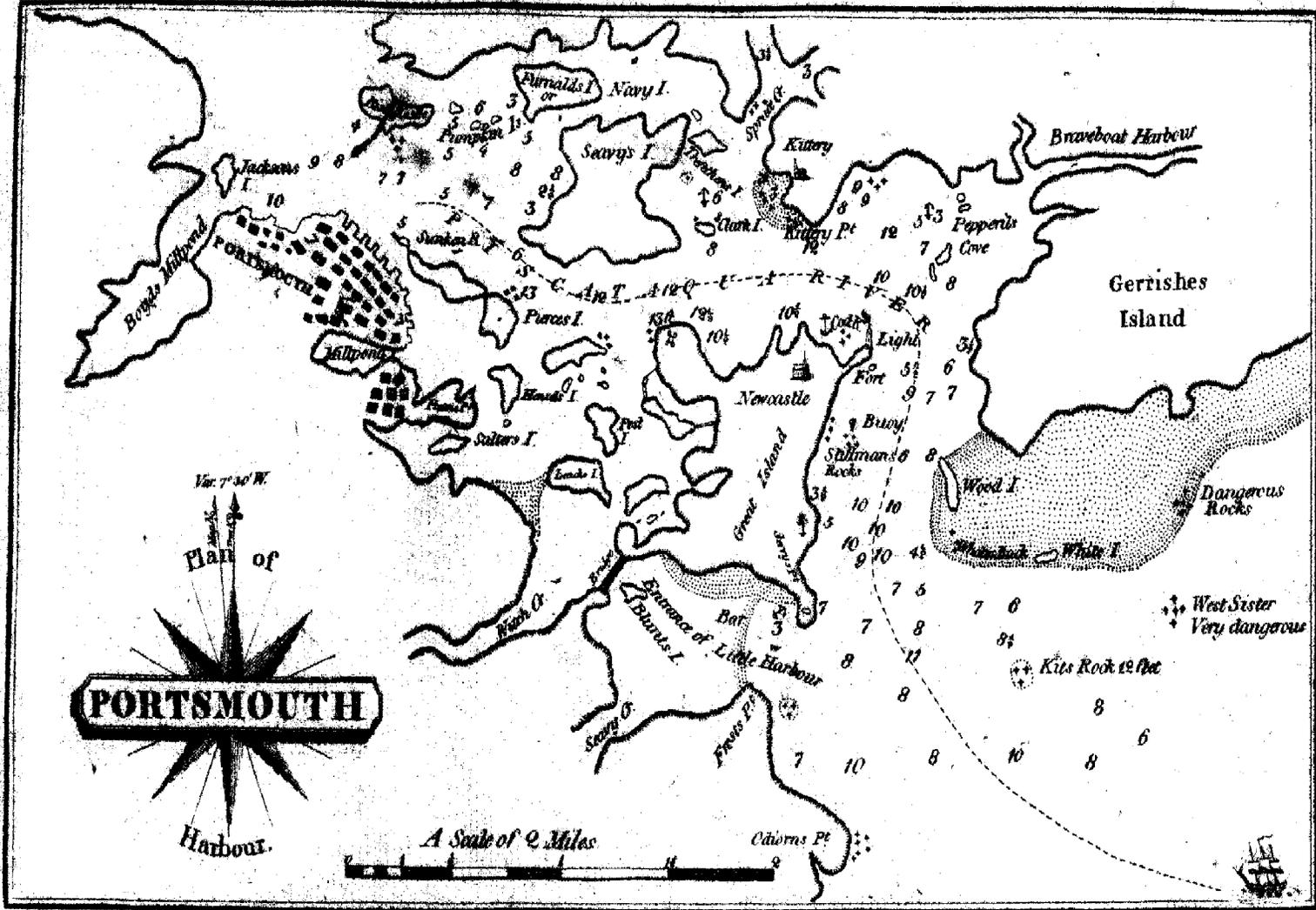
THESE hills lie N. W. from Portland, and N. N. W. from Wood island light-house. You may see them in clear weather, when no other part of the land is in sight. At the first sight they appear like a cloud, and are always white, occasioned, it is said, by their being covered with white moss. They have been seen when in lat. $43^{\circ} 10'$ N. being 46 miles from the Pyramid on Cape Elizabeth. The depth of water in the above latitude is 80 fathoms, muddy bottom. When you steer N. W. or W. N. W. from this latitude, you will make Agamenticus hills, and when bearing W. by N. 6 or 7 leagues, they appear like 3 hills, and the smallest of them to the eastward. At the same time, you will make Well's hills bearing W. N. W. and when you are on the northern part of Jeffrey's ledge,* in 45 fathoms water, you will see the hills of Agamenticus bearing W. by N. or W. N. W.

I would recommend to all mariners, in coming from the eastward, not to go to the northward of lat. $43^{\circ} 70'$ N. in thick weather, unless they are well acquainted, and judge themselves to be to the westward of Boon island ledge, as this has proved fatal to many who were unacquainted.

Between Jeffrey's and the Isles of Shoals, you will have 70 and 75 fathoms wa-

* Jeffrey's ledge lies between $42^{\circ} 20'$, and $43^{\circ} 37'$, $30'$ North latitude, and between $69^{\circ} 52'$, $50'$, and $69^{\circ} 45'$, West longitude.

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ter, muddy bottom, and a strong current setting to the S. W. You may see the Isles of Shoals 5 or 6 leagues, when you are to the eastward of them, but in thick weather you will see the meeting-house first which is on one of the islands. When you go to the westward of these islands, and are bound to Portsmouth or Newburyport, give them 3 miles distance, as there is a large rock, called Inness's rock, 2 miles off, bearing S. W. by S. from Star island, which is bare before low water.

Directions from Cape Porpoise to Wood Island Light.

WOOD ISLAND, (on which a light-house is erected containing a repeating light) is high woody land, very even, and lies N. E. 3 leagues distant from Cape Porpoise. In running for the light, bring it to bear N. N. W. or N. W. and run till within a cable's length with safety. You may go into this harbour either at the eastward or westward of the island. There are several rocks to the westward of the island, and likewise a long bar which lies to the S. W. about one quarter of a mile distant. When you have the wind to the southward, you may lay your course in, and anchor near Stage island; this is called Winter harbour. You may go in the eastern way, and have room to turn your vessel, (which is an advantage you cannot have in going in to the westward) but here you are exposed to the wind at N. E. and E. N. E. but if your cables and anchors are not good, you may run into the Pool, and lie safe from all winds.

Saco lies about a league to the northwest, but is a barred place, and has not above 10 feet, at high water, which makes it not fit for a stranger to go in; there is, however, considerable navigation owned here, and the inhabitants are enterprising.

The next place to Wood island is Richmond's island, which lies about N. E. northerly, 4 leagues; this place is only fit for small vessels, such as coasters—but few vessels put in here, it being only 1 league to the westward of Portland, which is at present one of the principal ports in the eastern country.

In sailing by Richmond's island you must be careful of a sunken ledge, called Watch ledge, that lies off about S. E. near half a mile from the N. E. end of the island; it does not show itself, except the wind blows fresh; but you need not go so near the island unless you have a scant wind, or turning to windward.

Directions to sail from Cape Neddock to Cape Porpoise.

YOUR course from Cape Neddock to Cape Porpoise is N. E. distant $4\frac{1}{2}$ leagues. Cape Porpoise is a bad harbour, and not to be attempted unless you are well acquainted, or in distress. In going in, you must leave 2 small islands on your larboard hand, and 3 on your starboard. It may be known by the high land of Kennebunk, which lies to the N. W. of it. When the harbour bears N. W. you must haul in, but be careful of the point on your larboard hand, and not go too near it, as it is very rocky. As soon as you are in the harbour, and clear of the point of rocks on your starboard hand, your course must be N. W. about 2 cables length, when you must come too, and moor N. E. and S. W. A vessel that draws 10 feet will be aground at low water. The harbour is so narrow that a vessel cannot turn round—is within 100 yards of the sea, and secure from all winds, whether you have anchors or not.

Directions for Portsmouth, (N. H.)

IF you fall into the eastward, and make Cape Neddock, and are bound to Portsmouth, when within half a mile of said cape, your course is S. S. W. 4 leagues, which course you will continue till you bring Portsmouth † light-house

* At the eastern side of the harbour lies a ledge, on which it always breaks.

† The light-house has but one light in it, and stands on Fort point, (New Castle island) at the entrance of the harbour. N. by W. and S. by E. moon makes high water at full and change.

to bear N. and run within one quarter of a mile of the light, then steer N. by E. or N. N. E. until you are abreast of the light, when you must steer N. W. until the light bears S. S. E. and anchor in 9 fathoms, at low water, good bottom.

If, when coming from sea, you make the Isles of Shoals, and are to the eastward of them, you must run for them till within one mile of the Eastern Isle, then steer W. N. W. until Portsmouth light-house bears N. then follow your directions as above.

If you come to the westward of the Isles of Shoals, give it a good birth, and steer N. $\frac{1}{2}$ W. which course will carry you up with the light, as above directed. If you have a head wind, and obliged to beat into the harbour, you must observe there is a sunken rock, at the east side of the entrance, called Kitt's rock, which has a buoy on it, and S. by W. one quarter of a mile from the light-house, lies a sunken rock, called Stillman's rock, which also has a buoy on it. Give the buoys a good birth, and there is no danger.

When you come from the S. W. and make Cape Ann, and to the eastward of the Dry Salvages, bring them to bear S. by E. and steer N. by W. or N. $\frac{1}{2}$ W. In steering this course you will make the Isles of Shoals, from which you may take a new departure—bring Star island to bear S. S. E. and run N. N. W. but if the wind should come to the northward, and you are obliged to turn into said port, you must stand to the westward no farther than to bring the light to bear N. till you get within Odiorne's point, and when standing to the eastward, to go about as soon as the light-house bears N. N. W. until you get within Wood island. Be careful of Odiorne's point, coming from the south-westward, for it lies off more than half a mile, with sunken rocks, which do not show themselves when the wind is off the land; likewise in standing to the east, you must be careful of the Whale's back, which lies S. S. W. of Wood island, and is covered at half tide. If you are bound to the eastward from this port, you steer S. by E. one league from the light-house, then steer N. N. E. for Old York or Cape Neddock, which is 4 leagues from Portsmouth; but if the wind should come from the northward you must be careful of York ledge, which bears from Swett's point S. E. distant 2 leagues. There is a sunken ledge that lies S. W. one mile from York ledge—it is never bare, but always breaks at low water, and is called the Triangle. Some part of York ledge is bare at half tide.

The next you come to is Boon island (on which is a light-house, which lies S. E. $\frac{1}{2}$ S. from Cape Neddock, or the Nubble, so called.) When you pass Boon island, bound to the eastward, and take the wind at N. N. E. you must take care of a ledge of rocks due N. from Boon island, one mile distant.

[N. B. I have passed this place several times, but never discovered the ledge till the year 1783, when being bound to the eastward, the wind took me from the westward, but the vessel having no more than steerage way, I hove over a line to catch a fish, and found I had 24 fathoms water, sandy bottom, and in a few minutes I had but 10 feet of water, and my vessel drawing 9; all that saved me from striking was, that the water being entirely smooth, the current set me to the eastward, and I got into 24 fathoms within the length of the vessel from where I sounded, and had but 10 feet.]

The worst ledge that I know on the eastern shore, is Boon island ledge, which bears east from Boon island, distant 1 league; and from Agamenticus hill, it bears S. E. 5 or 6 leagues. It is not safe for strangers to go very near this ledge, for several of the rocks are to be seen, long before low water.

When you come in from sea, and make Agamenticus hill bearing N. W. by N. you are then to the westward of Boon island ledge; but when the said hill bears N. W. by W. you may be sure you are to the eastward of it.—[See the Plate.]

Description of the Isles of Shoals.

BY the benevolence of the Massachusetts Missionary Society aided by subscriptions of several gentlemen in Newburyport, and the neighbouring towns, a Meeting-house has been erected on Star island (one of the above islands) which, from its situation, cannot fail of being advantageous, as a land-mark to mariners.

The following is the description and relative situation of the islands:

White island (the south-westernmost island) is a rocky island, three quarters of a mile in length, from S. E. to N. W. and about one mile and three quarters distant from the Meeting-house. There is a reef that extends about one third of a mile from the N. W. end, which in passing you must give a good birth. The S. E. end bears from the Meeting-house S. W. $\frac{1}{4}$ S. the N. W. end S. W. by W. $\frac{3}{4}$ W.

Londoner's (or Lounging island) lies about $1\frac{1}{2}$ mile to the northward of White island, is about $\frac{5}{8}$ ths of a mile in length from S. to N. and is high at each end; in high tides the middle is sometimes covered; a number of rocks lie close about the island, in almost every direction, some of which are always bare. The south end bears W. from the Meeting-house; the north end W. N. W. $\frac{1}{2}$ W. about half a mile distant. About half way between this island and Star island, lies a rock which is bare at low water; it bears from the Meeting-house N. W. by W. $\frac{1}{2}$ W. one third of a mile distant.

Star island (where the Meeting-house stands) is about three fourths of a mile in length from S. E. to N. W. and about half a mile in breadth; it is covered with buildings on the north side. The Meeting-house stands on an eminence a little to the northward of the middle of the island: is 12 feet high from the foundation to the roof; to the top of the steeple is 30 feet more; the whole height from the surface of the water is about 65 feet; it is painted white, and the steeple is placed in the middle of the building; it stands fronting the west, and may be seen at the distance of 8 or 9 leagues, in almost any direction at sea; it bears from Thatcher's island lights (Cape Ann) N. $\frac{1}{2}$ E. $6\frac{1}{2}$ leagues distant; from Pigeon hill N. by E. $6\frac{1}{4}$ leagues distant; from Newburyport light-houses N. E. $\frac{1}{2}$ E. 6 leagues distant; from Portsmouth light-house S. S. E. $\frac{1}{2}$ E. $3\frac{1}{4}$ leagues distant; from the western Agamenticus mountain S. $\frac{1}{4}$ E. from the eastern do. S. $\frac{1}{4}$ E. from Boon island light-house S. W. $\frac{1}{2}$ S. $4\frac{1}{4}$ leagues distant; from Boon island ledge (which lies one league E. from Boon island) S. W. by W. $4\frac{1}{4}$ leagues distant. Off the south end of this island about three quarters of a mile from shore, lies Anderson's rock, which is bare at half tide; in passing, give it a good birth; it lies from the Meeting-house S. S. E.

Cedar island is small, and about one third of a mile in length, from E. to W. situated between Star and Smutty-nose islands. There is a channel between it and Smutty-nose island; but it is crooked, and not fit to be attempted by strangers. The east end bears from the Meeting-house E. $\frac{1}{4}$ N. and the west end E. N. E. $\frac{1}{2}$ E. three eighths of a mile distant. A rock lies off the S. E. end of this island half a mile distant, bare at half tide, bearing from the Meeting-house E. by S.

Smutty-nose island is about one mile in length from E. to W. and about half a mile in breadth, and may be known by a windmill on the north part of the island; at the W. end is a fine harbour, called Haley's cove, where 15 or 20 small vessels may lie safe from all winds. There are several buildings near this harbour. There is a fine channel between this island and Hog island, where is water sufficient for any vessel, keeping near the middle of the passage. The west end of Smutty-nose island bears from the Meeting-house N. by E. $\frac{1}{4}$ E. and the east end E. N. E. about five eighths of a mile distant.

Hog island is a high island, lying to the northward of Smutty-nose island; is about one mile in length from E. to W. and five eighths of a mile from N. to S.

The west end lies from the Meeting-house N. by W. $\frac{1}{4}$ W. east end of do. N. N. E. seven eighths of a mile distant.

Duck island (the northernmost island) is a long low rocky island; some parts of it are covered at high water, with rocks projecting in every direction, especially at the N. W. end, where a ledge runs off half a mile. It is the most dangerous of any of the Isles of Shoals, and ought carefully to be avoided; it is about seven eighths of a mile in length from N. W. to S. E. the E. end bears from the Meeting-house N. N. E. $\frac{1}{4}$ E. the west end N. by W. $\frac{1}{4}$ W. about three and a quarter miles distant.



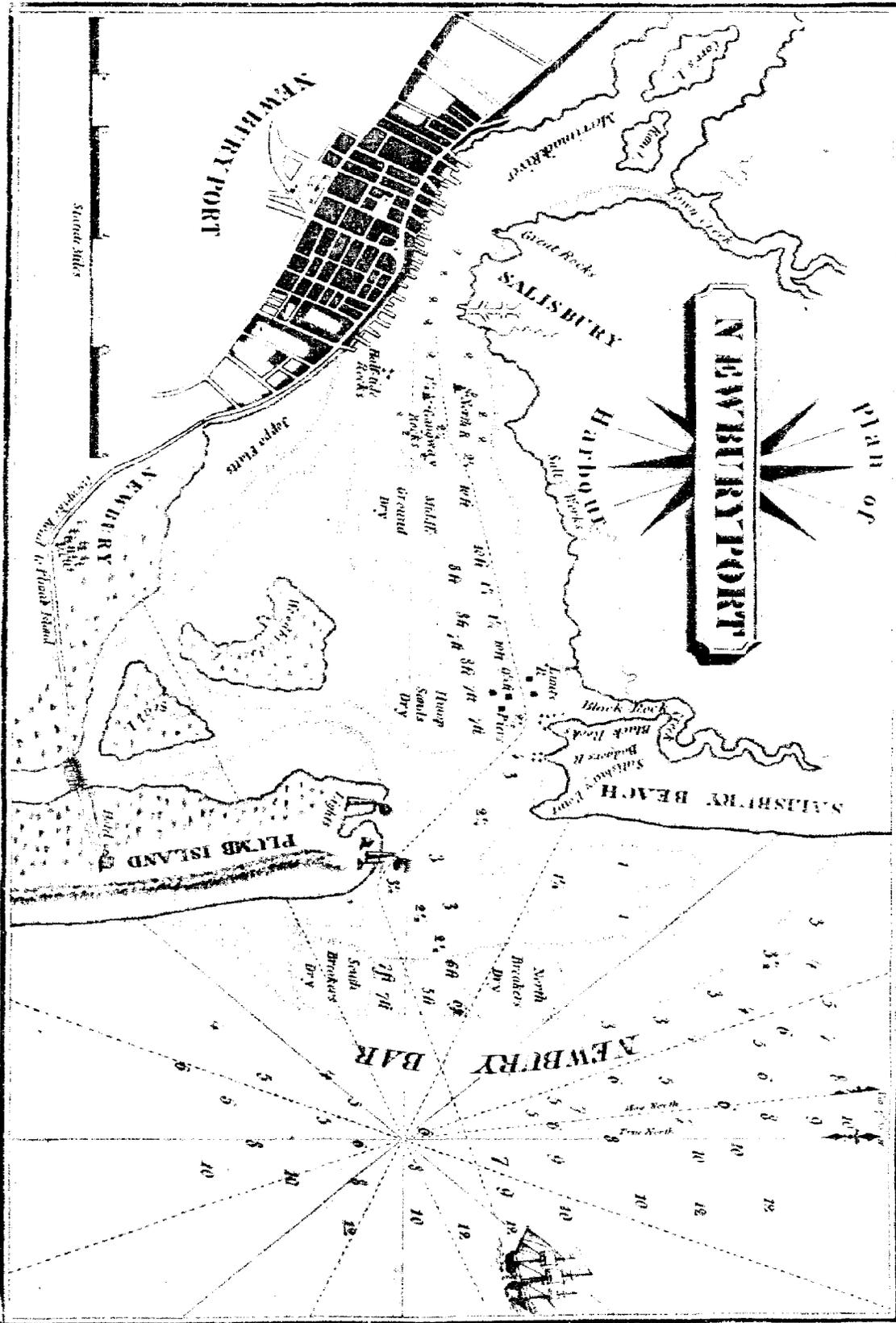
Directions for Newburyport and Ipswich Bay.

WHEN you come round Cape Ann, and are two miles to the northward of the dry Salvage rock, bring said rock to bear S. E. and steer N. W. by W. $3\frac{1}{2}$ leagues, which course and distance will carry you up with Newburyport bar. In running for the bar from the eastward, strangers should not approach too near Hampton harbour, as off the mouth of it lies several sunken rocks. Hampton harbour lies about 5 miles N. from the southern extremity of Salisbury point, between which, and Hampton harbour, N. by E. $\frac{1}{2}$ E. from the lights on * Plumb

* Plumb island, so called, is situated between the mouth of Merrimack river, on the north, and Ipswich Bay, on the south, and is separated from the main land by a narrow sound. Its length is about eight miles and a half, and its width from the sea to the main, not more than 500 paces. On the N. end of the island are two light houses, which are constantly lighted at night, and so constructed as to be easily moved; a circumstance requisite, from the frequent shifting of the bar at the mouth of Newburyport harbour. This bar is probably formed by the current of the river in its progress out, meeting the drift of the sea and opposing winds, and by that means forming a bank of loose sand, which the strength of the tide is insufficient to force out. It extends across from Plumb island, about a mile below the lights, to Salisbury beach. The channel over it is extremely narrow, and terminated on each side by very dangerous shoals; that on the north, called the North breaker, and that on the south, the South breaker. The light-houses are always so situated as to be brought in a range by the mariner coming over the bar; and as by the violence of winds or tides, the bar shifts, the light-houses are shifted to conform to it. By keeping the lights in one, vessels may, by day or night, come in with safety, and find good anchorage, in 4 or 5 fathoms water, abreast, or between the two lights.

That part of the island, bounding on the sea, and extending above half its width, consists entirely of yellow sand, perfectly smooth on the beach, but, farther from the sea, driven by the wind into hillocks, or heaps of fantastic forms, and preserved in that shape by the successive growth of grass and shrubs. On the back part of the island, where it is washed by the sound, is an extent of salt marsh, bounding its whole length. The products of Plumb island are scarcely worthy remark; beach grass is the principal, and is used only for manufacturing brooms. A species of Plumb, from which the island derives its name, grows here in tolerable abundance. It is produced on low running shrubs, on the summit and sides of the sand hillocks, is pleasant to the taste, and, generally in its season, an article for the market. There is likewise the beach pea, of which little or no use has ever been made; and indeed it is not found in sufficient plenty to become much more than an article of curiosity. At the southernmost end of the island there are several houses, with families, and a considerable spot of land, in good cultivation. To the northward of this, there is a grove of pine trees, of a mile and an half in extent.

The Marine Society of Newburyport erected, some years since, at their own expense; several huts, at proper distances from each other, and from the shore, and supplied them with fire-works, fuel, straw, &c.—but owing to the strong winds, driving the sand from their foundations, and the inhuman conduct of people who visited the island in summer, these huts were in a few years totally destroyed. The misfortunes attending this generous and humane attempt in favour of the ship-wrecked mariner, deterred the Marine Society, as well as other bodies and individuals, from a like benevolent attempt, until the establishment of the Merrimack Humane Society, in 1802. Conceiving it absolutely necessary that some relief should be afforded the unfortunate sufferer on so desolate a spot, and in the most ineluctable season of the year, the society voted to build three huts on the island, and have already carried their generous resolutions into full effect. The exertions of this benevolent institution will be, in future, to preserve these huts in repair, and in perfect supply of materials for fire, and other necessaries for the support and preservation of life. Many, no doubt, will owe their lives to the humanity of this design, and with grateful feelings contribute themselves to the preservation of others. The expense and trouble will be trivial in comparison



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island, 3 miles distant, lies another dangerous rock, having only $3\frac{1}{2}$ feet water on it. If you go no further to the westward than for the lights on Plumb island to bear S. W. there is no danger from either of the above-mentioned rocks, but that course to the bar would run you on the north breaker; therefore you must bring the lights to bear W. by S. and anchor in 11 or 12 fathoms water, if the tide will not permit your coming in. No vessel in coming in, ought to go nearer the South breaker, than 7 fathoms water, nor nearer the north breaker, in coming from the eastward, than 9 fathoms. There are several pilots belonging to this harbour, who will, if possible, be outside the bar, to take command of every vessel wanting their assistance. If they cannot, you must keep the lights in range, and run for them till within a cables length of the eastern light, when you must haul to the westward and anchor between the two lights in 4 fathoms water.* If your cables and anchors are not good, you may bring the western light-house to bear S. E. by S. and run N. W. by N. for †Salisbury point; but as soon as you make

with the noble purposes it may answer: and the hope of its answering these purposes will be alone a sufficient remuneration to the generous projectors.

From the report of a committee, appointed by the society, we have the following description of the huts, and directions to the mariner to find them:

The house for the keeper of the lights, erected by the United States, is about 20 rods south from the light-houses.

About 2500 paces, or $1\frac{1}{2}$ mile south from this house and the lights, on the inside of the island, is the first hut, to which the mariner, in day-light, may be directed by a beacon, about 300 paces to the E. with a hand pointing to the hut.

2900 paces, or about $1\frac{3}{4}$ mile south from this, is the second hut, with a similar beacon about 400 paces S. E. pointing to it.

1700 paces, or about one mile south from this, is a third, with a beacon, bearing E. 500 paces distant.

5000 paces, or about 3 miles S. of this, is a house, occupied by Mr. Spiller and family, which is about 1 mile from the S. end of the island, and about W. 1 mile from the S. end of the island, are two other houses, with families.

These huts, together with the other houses mentioned, form a chain from one extremity of the island to the other. The unfortunate mariner, whose fate may wreck him on this shore, can, by noticing the point of compass from which the wind blows at the time of his being wrecked, be governed in his course across the island, where he will find himself under the lee of the higher land, and protected in some measure from the violence of the tempest. By keeping along the margin of the island, where the travelling is good, and before coming quite to the marsh, either N. or S. he will be certain of meeting with one of these huts or houses, where he may find temporary relief. To facilitate still further, the means of conveying immediate assistance to those unfortunate mariners who may be wrecked on this island, a number of gentlemen were incorporated for the purpose, and have completed a bridge and turnpike road from Newburyport to Plumb island. This road leads in a south-easterly direction from Newburyport, and the bridge crosses Plumb island near about $\frac{1}{2}$ mile to the S. W. of Seal island. An elegant Hotel has been erected at the east end of the bridge, within 100 rods of the sea shore, 1 mile south from the lights, and about $\frac{3}{4}$ ths of a mile northerly from the northernmost house erected by the Merrimack Humane Society before mentioned. The Hotel is painted white, has three white chimneys, and may serve as a land mark for seamen.

If a vessel, by stress of weather, should be obliged to run ashore on this island, and the master can make any choice of place, it is most eligible to run on as nearly opposite this house as possible, as assistance and shelter can be more promptly afforded, and the communication more direct with Newburyport.

It rarely happens that any life is lost on this beach, in attempting to escape from the wreck, when the crew remain on board until low tide. Unless the vessel is in imminent danger of going to pieces immediately, the seamen should never take to their boat.

* A vessel that draws 10 feet water may come in at two thirds flood. They should always observe to keep to the windward of the bar, unless the wind should be fair. If the sea is so great as to prevent the pilot's getting over, a signal will be made by him, when you must run direct for his boat, keeping the lights in range, which will carry you safe over.

† In a course nearly N. from the light-houses on Plumb island, and about half a mile distant, across the mouth of Merrimack river, is the southern extremity of Salisbury beach, called Salisbury point. From this point a sand beach extends on the verge of the ocean, without an inlet or interruption of any consequence, until it reaches Hampton river. This beach is connected with the main land by a salt marsh of considerable extent, intersected by a variety of small rivulets and creeks, which render it impossible for a ship-wrecked mariner to reach the inhabited parts of Salisbury. Here too the hapless seamen is sometimes destined

said point, you must haul up N. W. which course will carry you clear of *Badger's rocks, Black rocks, and the Hump sands. Across the channel from the Hump sands to Black rock creek, lie 7 or 8 piers, on which are from 7 to $2\frac{1}{2}$ feet water, at low water, which were sunk in the year 1776, and have not since been removed; the mark to pass between them is to bring the beacon, at the west end of the town of Newburyport (which may be distinctly seen in clear weather) over the south corner of the north meeting-house. The Hump sands lie S. W. from Salisbury point, which makes the channel very narrow, and difficult for strangers. When you pass the Black rocks, you must haul up W. by S. $\frac{1}{2}$ S. which will bring you in channel way, and good anchorage. And if it be in the night, or dark weather, when you judge yourself about half a mile from Black rock, you may come too with safety. I would recommend to all masters, whether they belong to Newburyport or not, to avoid going into that port in a gale of easterly wind, except they are well acquainted, and have a good prospect of getting in, as every person acquainted with the harbour knows that no pilot can get over the bar when it blows a gale from the eastward. And if you should make Cape Ann lights, and bring them to bear S. by E. or the Dry Salvages to bear S. by E. you may run with safety N. by W. or N. $\frac{1}{2}$ W. distant 10 leagues from Cape Ann to Portsmouth. In running the above course, you will make the Isles of Shoals, if it is any way clear, from which you take a new departure; when you pass the said island, you bring Star island (on which the meeting-house stands, and which is the S. W. island) to bear S. S. E. and then steer N. N. W. distant from said island 3 leagues to Portsmouth. There is a very good harbour in the Isles of shoals, from the wind from northeasterly round to southerly, and you may lie land locked with any of them; but if the wind hauls to the S. W. or W. N. W. you may run in between Smutty nose island, (which has a wind-mill on it) and Hog island, where there is water enough for a first rate man of war; and where you anchor, have 12 fathoms muddy bottom.

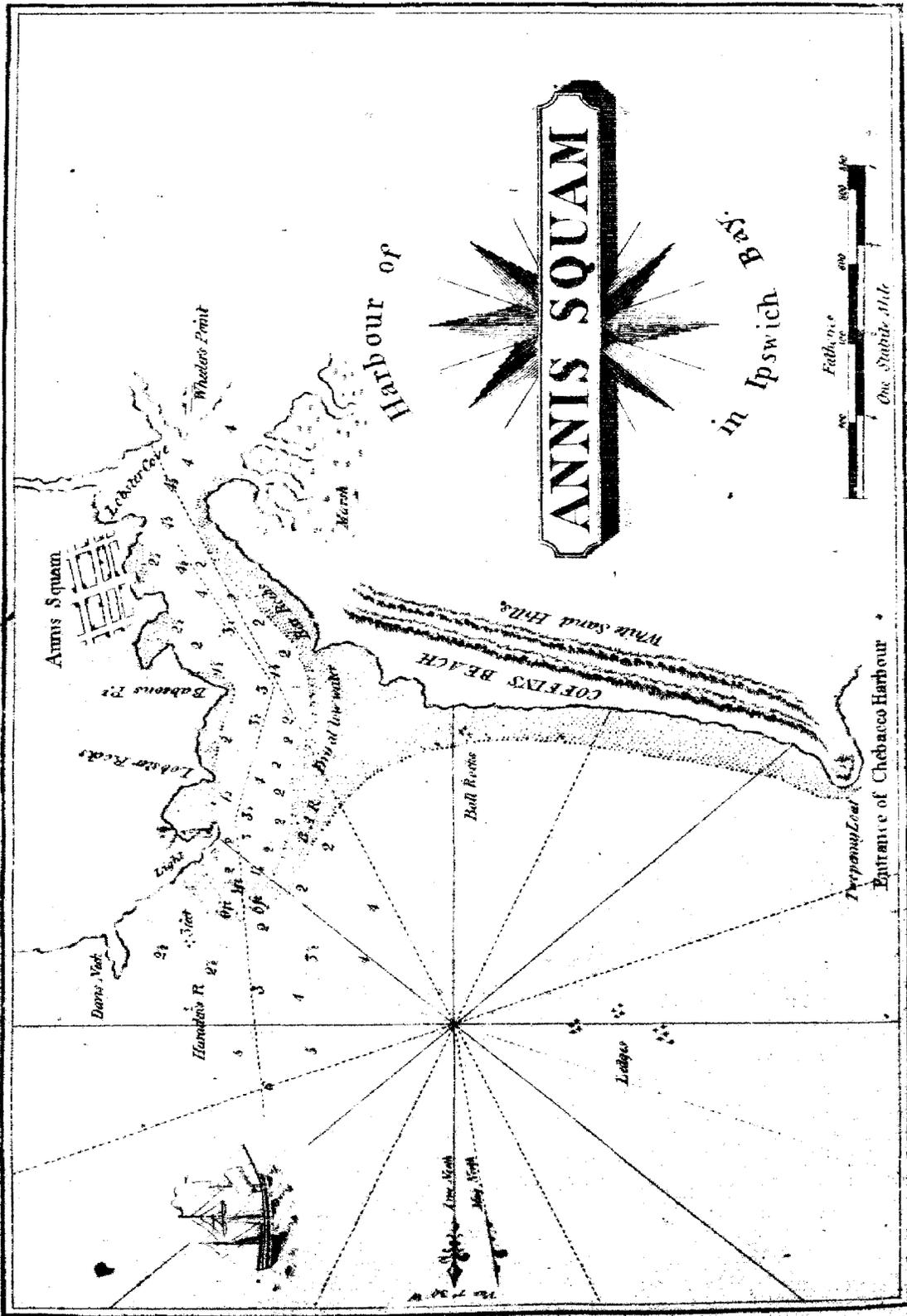
In going into Portsmouth, you may bring the light-house to bear N. N. W. till you get within Wood island: Then you may haul away N. or N. by E. till you pass the light-house; you may then haul up W. N. W. or N. W. by W. and bring the light-house point to shut in with Wood island, where you will be safe from all winds, and may anchor in 8 or 9 fathoms water.

When you come from the eastward, with the wind at E. or E. S. E. with which

to suffer the misfortunes of shipwreck, and to reach a desolate and inhospitable shore, only to aggravate the horrors of his death. If he can attain the first and wished for object, in evading the jaws of the angry ocean, he yet finds himself a solitary wanderer on the coast, without shelter and without sustenance; and in his fruitless search for them, must inevitably perish. As the N. E. storms are generally most fatal to vessels on this part of the coast, Salisbury beach is not so often a place of Shipwreck as Plumb island. But to guard against a possibility of accident, which must sometimes happen to the unskilful or inexperienced navigator, the Marine Society erected a hut, similar to those on Plumb island. Here they deposited every thing necessary for the relief of such as might need it, and were at the pains and expense frequently to inspect it, and renew their generosity by replenishing it: but this has shared the same fate with those on Plumb island, not so much, however, from the insufficiency of its foundation, or the violence of the winds, but from the wantonness of individuals and companies, who frequent this spot in the warm season, *on parties of pleasure*. The Merrimack Humane Society have extended their benevolent views to this part of the coast, and have erected a hut about $\frac{1}{2}$ of a mile north from Black rocks, so called, and about 150 paces from the sea shore. This hut will be maintained in commodious repair, and provided with every thing suitable for those who may be so unfortunate as to need its shelter. Others on the same coast will be erected as speedily as the funds of the Society, and the charities of individuals will render it possible, and will be conveniently furnished and provided for the same laudable purpose.

* Badger's rocks bear N. W. $\frac{1}{2}$ N. from the light-houses, distant half a mile, and are covered at two thirds flood, which you leave on your starboard hand. Black rocks bear N. W. from the light-houses three quarters of a mile distant, are always dry, which you also leave on your starboard hand. Half tide rocks (on which is placed a Pier) bear W. by S. $\frac{1}{2}$ S. from Black rocks, distant one mile and a half, are bare at half tide, which you leave on your larboard hand. North rocks, (which also have a Pier on them) bear W. by S. from Black rocks, distant one mile and a half, and are seen only at very low tides, which you leave on your starboard hand, between which and Half tide rocks is the channel.

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wind you cannot weather away Cape Ann, and you are to the northward of the Isles of Shoals, your only shift is to Portsmouth, and you are obliged to run so far to the westward as to bring said port to bear N. N. W. and in general the wind at E. at sea hauls two or three points to the northward, which makes it a head wind. [*See the plate.*]

SIGNALS FOR VESSELS,

When in sight, supposed to be bound for Newburyport, and the sea is so large on the bar, that Pilots cannot get out to their assistance.

When a vessel comes into the bay, and cannot come over the bar at HIGH WATER, owing to insufficiency of the tide, a RED SQUARE FLAG will be hoisted up and a PENDANT under it, and as soon as those signals are seen from the vessel in the bay, she must keep off, and try some other port.

When the usual signals for vessels are kept up, the vessel must lay off and on at the bar keeping to windward until signals be made for her to come in; and when it is a suitable time to come over the bar, a RED SQUARE FLAG will be hoisted half mast: she may then come in, keeping the lights in range.

When a PENDANT is hoisted half mast the vessel may come in, keeping the lights a little open to the northward.

When a BLUE BURGEER is hoisted half mast the vessel may come in, keeping the lights a little open to the southward.

When a vessel is seen in the bay, and does not come in before night comes on, the following lights will be made, viz.

For a vessel to keep off, and not attempt to come in over the bar during the night, a LANTHORN will be hoisted to the top of the flag staff.

When there is a proper time for a vessel to come in over the bar during the night, two LANTHORNS will be hoisted, one at the top of the flag staff, and the other half mast high. The vessel must then lay off and on at the bar until a light is made in the eastern light-house, at a window about eight feet below the lantborn. The vessel may then come over the bar, keeping the lights in range, and when she gets abreast of the upper light, there is good anchorage.

The signal for a vessel in distress is a WHITE SQUARE FLAG, with a large black ball in the centre, hoisted half mast high.

Directions for Annis Squam Harbour in Ipswich Bay.

THE masters of vessels out of Newburyport should generally be acquainted with the harbour of Squam; and for their benefit a plan of the harbour has been taken from actual survey, which will be of the greatest importance when obliged to make a harbour from Ipswich bay, through stress of weather. When a vessel at anchor off Newburyport bar, parts a cable and looses an anchor, with the wind at N. E. or E. N. E. if she can carry double reefed sails, she may run S. S. E. 5 leagues, which course, if made good, will carry her a little to the eastward of Squam bar; and if the weather is so clear as to see half a mile when you make the land to the eastward of Squam, you may run within a cable's length of the shore; your course is S. S. W.

Squam bar bears from Hallowboat point (the N. E. point of Cape Ann) from W. S. W. to S. W. distant about 2 leagues. In running from Hallowboat point, you must be careful of Plumb cove ledge, which shews itself till near high water, and bears from *Squam light N. N. E. a little northerly, distance five-eighths of a mile. When you have passed this ledge, you leave a deep cove, called Hodgkin's cove, and a long point or neck of land, called Davis' neck, on your larboard hand. When up with this neck haul S. W. or S. W. by W. for Squam bar.

In sailing into this harbour bring the light to bear due S. when at the distance of one mile, and run directly for it, leaving Haradan's rock (which lies N. by E. $\frac{1}{2}$ E. from the light distant three eighths of a mile) on your larboard hand; continue your course till within 50 yards of the light-house, then haul up S. S. W.

* Annis Squam light house is a wooden building, of an octagonal form, about 40 feet high, and about 50 feet above the surface of the water at common high tides. It is painted white, and may be known by being lower than any other light-house on the coast of Massachusetts, and its inland situation. It bears from Portsmouth light-house about S. by W. distant 19 or 21 leagues, and from Newburyport bar S. E. E. 5 leagues.

for the Bar rock, leaving the light-house on your larboard, and the bar, which runs nearly N. E. and S. W. (leaving the river about 90 fathoms broad, opposite the light-house) on your starboard hand. In running this course you will leave the Lobster rocks (which lie S. by W. from the light-house, distant 200 yards, and are dry at low water) on your larboard hand. When up with the Bar rocks (which lie on the starboard hand, and are dry till nearly high water) steer S. by E. $\frac{3}{4}$ E. till you open the houses, and you may anchor in from $3\frac{1}{2}$ to 5 fathoms clear sandy bottom; or run your vessel on shore on the starboard hand, in case you have neither cables nor anchors.

When a stranger is obliged to run for Squam harbour, and is doubtful whether to enter on account of the depth of water, he had best anchor back of the bar, and he will immediately have assistance from the light-house, if it is possible for a boat to live; if the weather is so boisterous that a boat cannot come off, a flag will be hoisted on shore near the light-house, as soon as there is water enough for a vessel on the bar, when he may run in as above directed.

If you are bound to Ipswich, your course from Hallowboat point to the mouth of the channel that leads into the harbour, is W. $\frac{1}{2}$ N. distant about 8 miles. There are two beacons erected a small distance to the southward of Castle hill, which may be run for, but as the bar is often removed by storms, it is not safe to run into the harbour unless acquainted. [See the Plate.]

Directions to go into Cape Ann Harbour.

WHEN you come from the eastward, and make *Cape Ann lights in the night bring them to bear S. W. and run direct for them, which course will carry you within the Londoner, and when you pass the said rocks, bring the two lights in one, at which time they will bear N. by E. $\frac{3}{4}$ E. and then steer S. S. W. $\frac{1}{4}$ W. keeping said course about 1 mile, which will carry you clear of Milk island, which is very low and cannot be seen in a dark night. When you judge yourself to the westward of said island, you haul to the westward until you bring the lights to bear E. N. E. when you must steer W. S. W. about 5 miles, which course will carry you to Eastern point. When you pass said point, keep your course W. S. W. until you bring Norman's Woe, which is the highest land on the north side of the harbour, to bear N. N. W. then run N. N. W. till you shut the light in, then N. N. E. will carry you safe in.

If you want to go inside the Salvages, keep close aboard Hallowboat point, which has a tree on the eastern part of it, and steer S. S. E. for Straight's mouth island, but be careful to avoid Avery's rock, by keeping the lights on the dry point of Straight's mouth island, till you get up close aboard, then haul round the point, and S. S. E. will carry you to the lights. To avoid the Londoner, you must keep the lights close aboard the body of the island, on which they stand; the Londoner lies half a mile off, breaks at all times of tide, is quite dry at low water, and bears E. S. E. from the middle of Thatcher's island. A long shoal runs off N. E. half a mile distant from the Londoner. Between the Londoner and Thatcher's island there are $3\frac{1}{2}$ fathoms, at low water. From the Salvages to Hallowboat point and Sandy bay, there lies a large spot of flat ground, which at low water will take up a small vessel. Outside the Salvages is very bold. Hallowboat point bears from the Salvages W. N. W. $2\frac{1}{4}$ miles distant, and the Salvages bear from the lights N. N. E. 3 miles distant. If the wind be to the eastward you may anchor in a bay that makes between Ten pound island and Eastern point, the latter bearing S. by E. and Ten pound island bearing N. Here you may anchor in 4 fathoms water, on muddy bottom. This is a good harbour against easterly winds, but if the wind be S. W. you are exposed to it in which case you may clear away Ten pound island, leaving said island on your starboard hand, and steer into the harbour, as above directed, and come too near Five pound island.

* Cape Ann light-houses are built on Thatcher's island, which lies about 2 miles E. of the S. E. point of Cape Ann, and forms the northern limits of Massachusetts bay, in lat. $42^{\circ} 40'$ N. long. $70^{\circ} 34'$ W.

NOTE. In sailing from Cape Ann lights to Cape Ann harbour, you will first open Braces Cove, before you come up with the harbour, which will, when open, bear N. N. W. which you must avoid. Cape Ann harbour lies one mile farther to the westward, and when open bears N. N. E.

Directions for Salem Harbour.

VESSELS inward bound, and falling in with Cape Ann, must observe the following directions, viz.—When abreast of Cape Ann lights, bearing N. N. W. about two miles distant, steer W. S. W. about 3 leagues, which will carry them up with the eastern point of Cape Ann, then steer W. by S. $\frac{1}{2}$ S. $7\frac{1}{2}$ miles, which will carry them up with the light on (a) Baker's island.

Ships bound to Salem falling in to the southward, must not run for the light till it bears N. W. b. W. which will carry them to the eastward and clear of the South Breaker of Baker's island, which bears from the light S. E. by S. two miles distant, and is very dangerous.

Vessels bound to Salem having made the light with a westerly wind, in beating up, must not stand to the southward or westward, further than to bring the light to bear N. W. b. W. on account of the South Breaker, nor to the northward further than to bring the light to bear W. b. S. $\frac{1}{2}$ S. on account of Gale's ledge, which bears from the light N. E. b. E. $1\frac{1}{4}$ mile distant.

In going into Salem, by the common, or ship channel, between Baker's island and (b) Misery island being up with Baker's island, you may pass within 100 fathoms of it, and steer W. by N. for the (c) Haste; this course will carry you clear of (d) Hardy's rocks, leaving them to the southward, and will leave (e) Bowditch's ledge to the northward. If you are in the middle of the passage between Baker's island and the Misery, you may steer W. N. W. till you have passed Bowditch's ledge, or till you have (f) Cat island open to the westward of (g) Eagle island, then haul up W. for the Haste; any stranger may there anchor in safety, in about 5 fathoms of water, good anchorage; but if you choose to proceed to Salem harbour, you must steer about W. for the Haste, which you leave on your larboard hand, about half a mile distant, then steer S. W. by W. which will carry you into Salem harbour; but you must observe that there is a ledge runs

(a) Baker's island lies on the south side of the principal entrance of Salem harbour, is about a third of a mile in length, from N. to S. bearing E. from Fort Pickering, distant about 5 miles east from the town of Salem. The light house, which stands on this island, contains one fixed light. The water is deep near the island, but there is no convenient landing places. The N. and E. sides are high and rocky. There is a small channel between the S. rocks and the dry breakers, but is safe only to those who are acquainted with it.

(b) Misery island lies from Baker's island about 1 mile, is joined by a bar to Little Misery, which makes the N. side of the channel opposite Baker's island.—Misery island or Great Misery is 174 rods in length from N. to S. and 96 rods in breadth. Little Misery is 40 rods in length, with its most western point projecting into the channel.

(c) The Haste Rock is a broken rock above water, lying near the channel, bearing from Baker's island light house W. $\frac{1}{4}$ N. distant $2\frac{1}{2}$ miles, and $1\frac{1}{2}$ mile from Salem neck.

(d) Hardy's rocks (on which a Beacon is erected) bear W. $\frac{1}{4}$ N. from Baker's island light, distant five-eighths of a mile; they are covered at high water, and are dangerous.

(e) Bowditch's ledge bears from Baker's island light-house W. N. W. $1\frac{1}{4}$ mile distant, and has a Beacon on it.

(f) Cat island is situated about S. W. by W. from Baker's island, 2 miles distant, and about $1\frac{1}{4}$ mile from Marblehead neck, and ranges from Baker's island just clear of Marblehead neck. On the N. W. end is a high beach, directly opposite the point of Marblehead, called Peach's point. The shore is irregular and rocky. Beyond and on a line with the island are two other heads, of nearly the same projection: and on the southern side are three high rocks, but not so large as the former. Two of them are connected with the island by bars of sand, out of water at the ebb; the other stands boldly up within these two, but more southerly. The Marblehead Marine Society has erected on Cat island rock, a Spar 40 feet high, to the top of which is annexed a Cask of about 150 gallons measure, which is seen at sea 20 or 30 feet above the land.

(g) Eagle island is about $1\frac{1}{4}$ mile from Peach's point, and bears from the light-house W. by S. $\frac{1}{4}$ S. distant $1\frac{1}{2}$ mile; a bar runs off from the western point of the island, in a N. W. direction.

off from the N. E. end of (h) Winter island and that Abbot's rock lies abreast of it; to avoid which you must keep above a quarter of a mile from the shore. Abbot's rock is found by bringing Castle hill and house into the cove N. of Fort Pickering, and Beverly meeting-house well in with Juniper point (or S.E. point of Salem neck.) Abbot's rock has 7 feet at common ebb. The mean of common tides is 12 feet. In keeping off shore, to avoid Abbot's rock, you must not go too far off, for fear of the Aquæ Vitæ, which are sunken rocks, lying E. S. E. from Fort Pickering, distant nearly half a mile.

When coming from the southward, if you are near Cat island, you may pass to the eastward or westward of it; if you are to the eastward, you must give a birth of a quarter of a mile, and steer N by W. $\frac{1}{2}$ W. or N. N. W. leaving the (i) Brimbles and Eagle island to the starboard, and (j) Coney island ledge to the larboard—that course will carry you clear of Eagle island bar; continue upon the same course till you have passed the Haste, and got into the common ship channel, or you may continue the same course till you get under the north shore, where there is good anchorage.

If you are to the westward of Cat island, you may pass in the middle channel between that island and (k) Marblehead rock, and steer over N. for the ship channel, leaving (l) Gray's rock and Coney island to the westward. After passing the Haste, and entering the ship channel, you may proceed as before directed.

If in coming from the southward and eastward you should find yourself near Half way rock, you may bring it to bear S. E. and steer N. W. for the Haste, passing near to (m) Satan, or Black rock, leaving it on the larboard hand, and the Brimbles and Eagle island on the starboard; continue this course, and you will leave the Haste on the larboard hand, and enter the common ship channel, and proceed as above.

There are several other channels for entering Salem harbour, but they ought not to be attempted without a pilot.

Directions for Beverly and Manchester.

TO enter Beverly harbour, follow the directions for Salem harbour, till you bring the Haste to bear E. S. E. and run W. N. W. about 2 miles, and you reach Beverly bar, which is a spot of sand running out from the southern or Salem side of the entrance, and has commonly a beacon upon the head of it, above a quarter of a mile from the shore. The bar has very shoal water on the eastern or outward side near it, but good anchorage within. There is good water at the head of the bar. Having passed the bar there is a sandy point from Beverly, on the northern side of the entrance, and beyond this point are the Lobster rocks, which bear from the head of the bar W. a little S and not half a mile distant, and they are above water at half tide. To avoid this point, after having well cleared the bar, you will steer towards Ram horn rock, which has also commonly a beacon, and is to be seen at half tide, bearing S. W. by S. from the head of

(h) Winter island lies on the north side of the entrance of Salem harbour, about half a mile in length, the highest part is on the south of the island, opposite a point of rocks on the neck, (which is a point of land running north-eastwardly from the town, about 1 mile.) It has a store and wharf on the southern end, at the entrance of Cat Cove. On the eastern point stands Fort Pickering.

(i) The Brimbles bear S. S. E. from Eagle island nearly half a mile distant—they are sunken rocks, bare at low water.

(j) Coney island is a small island that lies near the mouth of Salem harbour; it bears from Marblehead point N. E. 1 mile distant; from Fort Pickering, on Winter island, E. $\frac{1}{4}$ two miles distant; and from Baker's island light, W. $\frac{1}{4}$ S. $2\frac{1}{2}$ miles distant.

(k) Marblehead rock bears S. W. from the western part of Cat island, distant three fourths of a mile; it is above water, and may be approached on either side, very near, with safety.

(l) Gray's rock bears N. W. from Cat island, distant three quarters of a mile; it is above water, and may be approached with safety.

(m) Satan, or Black rock, is above water, steep too, and bears S. W. by S. from Baker's island, distant one mile and three quarters.

the bar, one eighth of a mile distant. There are several fathoms of water within a vessel's length of Ram horn rock. Giving this a good birth, you then clear the sandy point, and steer for the Lobster rock beacon, bearing from Ram horn beacon N. W. by W. distant about 1 quarter of a mile. Giving this a good birth, you are then opposite to the wharves, and may anchor in deep water, and in a very safe and excellent harbour.

To enter Manchester harbour you must bring the light to bear S. $\frac{1}{2}$ E. and run N. 1 mile distant, where you may anchor on good bottom.

N. B. Eastern point bears from Baker's island light E. by N. $\frac{1}{2}$ N. $7\frac{1}{2}$ miles distant. Half way Rock bears from the light S. $\frac{1}{4}$ E. 2 miles distant. Hardy's rocks bear from the light W. $\frac{3}{4}$ N. distant three quarters of a mile.

Directions for sailing into Marblehead.

VESSELS inward bound, and falling in with the lights on Thatcher's island, may observe the following directions, viz. Thatcher's island ledge bears from the body of the island from E. S. E. to S. S. E. extending about 2 miles from the island. After getting the west light to bear N. $\frac{1}{4}$ W. you are to the westward of the ledge; then haul to the N. W. to bring the lights to bear N. E. by E. and steer S. W. by W. for the eastern point, which is about 7 miles distant from Thatcher's island. Then your course is W. by S. distant $7\frac{1}{2}$ miles, for the light on Baker's island.

Vessels bound to Marblehead, and falling to the southward, and running for the light, must not bring it to bear farther north than N. W. by W. to avoid Baker's Island Breaker, which bears from the light from S. E. $\frac{1}{4}$ S. to S. E. by S. $\frac{1}{4}$ S. distant 2 miles.

Having made the light with a westerly wind, and beating, when within $2\frac{1}{2}$ miles of the light you must not stand to the southward and westward, further than to bring the light to bear N. W. by W. on account of the South Breakers, nor to the northward further than to bring the light to bear W. by S. $\frac{1}{4}$ S. on account of Gale's ledge, which bears from the light N. E. by E. $1\frac{1}{2}$ miles distant.— Drawing near the light, take care of a ledge called the Whale's back, which bears from the light N. by E. distant four-fifths of a mile.

In going into Marblehead, and being up with the light, give the north point of Baker's island a birth of one quarter of a mile or less; when the light bears S. E. $\frac{1}{4}$ E. you are up with the point, and when it bears S. E. by E. you have passed the point, (leaving the Misery island on your starboard hand, which bears from the light N. W. $\frac{1}{2}$ N. four-fifths of a mile, then steer S. W. by S. until you bring the light to bear N. E. by E. $\frac{1}{2}$ E. then steer S. W. by W. $\frac{1}{2}$ W. distant 3 miles, for Marblehead harbour. You will leave Hardy's rocks, Eagle island, and Gray's rock, on the starboard hand; Pope's head, Brimbles, and north point of Cat island, on the larboard hand. The Brimbles bear from Eagle island S. S. E. $\frac{1}{2}$ E. distant half a mile; and Gray's rock from the north point of Cat island, N. W. by W. seven eighths of a mile.

Falling in with the south point of Baker's island, and it blowing hard from the eastward, if you cannot avoid it you may pass the point by keeping it well on board say at the distance of from 20 to 50 fathoms from the shore, where you will have from 4 to 5 fathoms water. When up with the S. W. point steer W. S. W. which will carry you between the north Gooseberry and Pope's head, leaving the former on your larboard hand, and Pope's head on your starboard hand, between which you will have from $3\frac{1}{2}$ to 5 fathoms of water. As soon as you have passed Pope's head haul to the northward, until the south light bears N. E. by E. $\frac{1}{2}$ E. then steer S. W. by W. $\frac{1}{2}$ W. for Marblehead harbour.

Vessels coming from the eastward and running for Half way rock,* must not

* Half way Rock is a high bold rock of about 30 fathoms diameter, lying S. $\frac{1}{4}$ E. from Baker's island Light-house, distant 2 miles.

bring the rock to bear to the southward of W. S. W. to avoid the south breaker, which bears from Half way rock N. E. $\frac{1}{2}$ E. distant 1 mile. Being up with Half way rock, and bound into Marblehead, bring the rock to bear E. by S. $\frac{1}{2}$ S. and steer W. by N. $\frac{1}{2}$ N. for Fort head, distant 3 miles, leaving Cat island on the starboard hand, which bears from Half way rock W. N. W. distant $1\frac{1}{4}$ miles, and Marblehead rock† on the larboard hand, which bears from Half way rock W. $\frac{1}{2}$ N. distant 2 miles. Black rock bears from Half way rock N. W. b. W. distant $1\frac{1}{2}$ mile. Cat island rock and Point neck bear east and west of each other, distant about 1 mile.

Vessels being up in Boston bay, may, by bringing Boston light to bear S. S. W. run N. N. E. for Marblehead rock; they are distant from each other about 12 miles. Half way rock and Boston light bear of each other S. W. and N. E. distant 15 miles.

Hardy's rocks are covered at high water, and may be seen at quarter ebb. Whale's back is covered at high water, and may be seen at quarter ebb. Gale's rocks are seen only at low spring tides. The south breakers off Baker's island are always covered. The Brimbles are covered at high water, and are seen at half tide. Black rock is always out of water, but low. Cat island rock, Half way rock, Marblehead rock, Gray's rock, and Pope's head, are large, and high above water. Half way rock is very bold all round it. Eagle island is bold only on the south and east; from the N. E. part of it, quite to Hardy's rocks, is very shoal water, and no passage for ships.

Bearings and distances of the principal Islands, Rocks, &c. in the vicinity of Salem, from Baker's island Light.

Eastern point of Cape Ann bears	- - - -	E. by N. $\frac{1}{2}$ N.
Gale's Ledge, distant $1\frac{1}{2}$ mile	- - - -	N. E. by E. $\frac{1}{2}$ E.
House island, distant 1 mile	- - - -	N. N. E.
E. part of Whale's back	- - - -	N. by E.
E. part of Great Misery	- - - -	N. by W. $\frac{1}{4}$ W.
S. part of Little Misery, distant $\frac{3}{4}$ mile	- - - -	N. W. $\frac{1}{2}$ N.
Bowditch's ledge, 1 mile	- - - -	W. N. W.
N. part of Hardy's rocks, $\frac{3}{4}$ mile	- - - -	W. $\frac{1}{2}$ N.
N. part of Haste rock, $2\frac{3}{4}$ mile	- - - -	W. by N.
S. part of Coney island, $2\frac{1}{2}$ mile	- - - -	W. $\frac{1}{4}$ S.
Nagus head, on Marblehead shore	- - - -	W. $\frac{1}{2}$ S.
N. part of Gray's rock	- - - -	W. S. W. $\frac{1}{4}$ W.
N. part of Eagle island, $1\frac{1}{2}$ mile	- - - -	W. by S. $\frac{1}{4}$ S.
S. part of Marblehead Neck	- - - -	S. W. by W. $\frac{1}{4}$ W.
N. part of Cat Island, 2 miles	- - - -	S. W. by W.
Middle of Pope's head, distant $\frac{3}{4}$ mile	- - - -	S. W. by W.
N. part of Western Gooseberry	- - - -	S. W. $\frac{1}{2}$ S.
Satan, or Black rock, $1\frac{1}{2}$ mile	- - - -	S. W. by S.
Eastern Gooseberry, $\frac{1}{4}$ mile	- - - -	S. S. W. $\frac{1}{2}$ W.
Half way rock, 2 miles	- - - -	S. $\frac{1}{4}$ E.
S. Breakers off Baker's island, 2 miles	- - - -	S. E. by S.

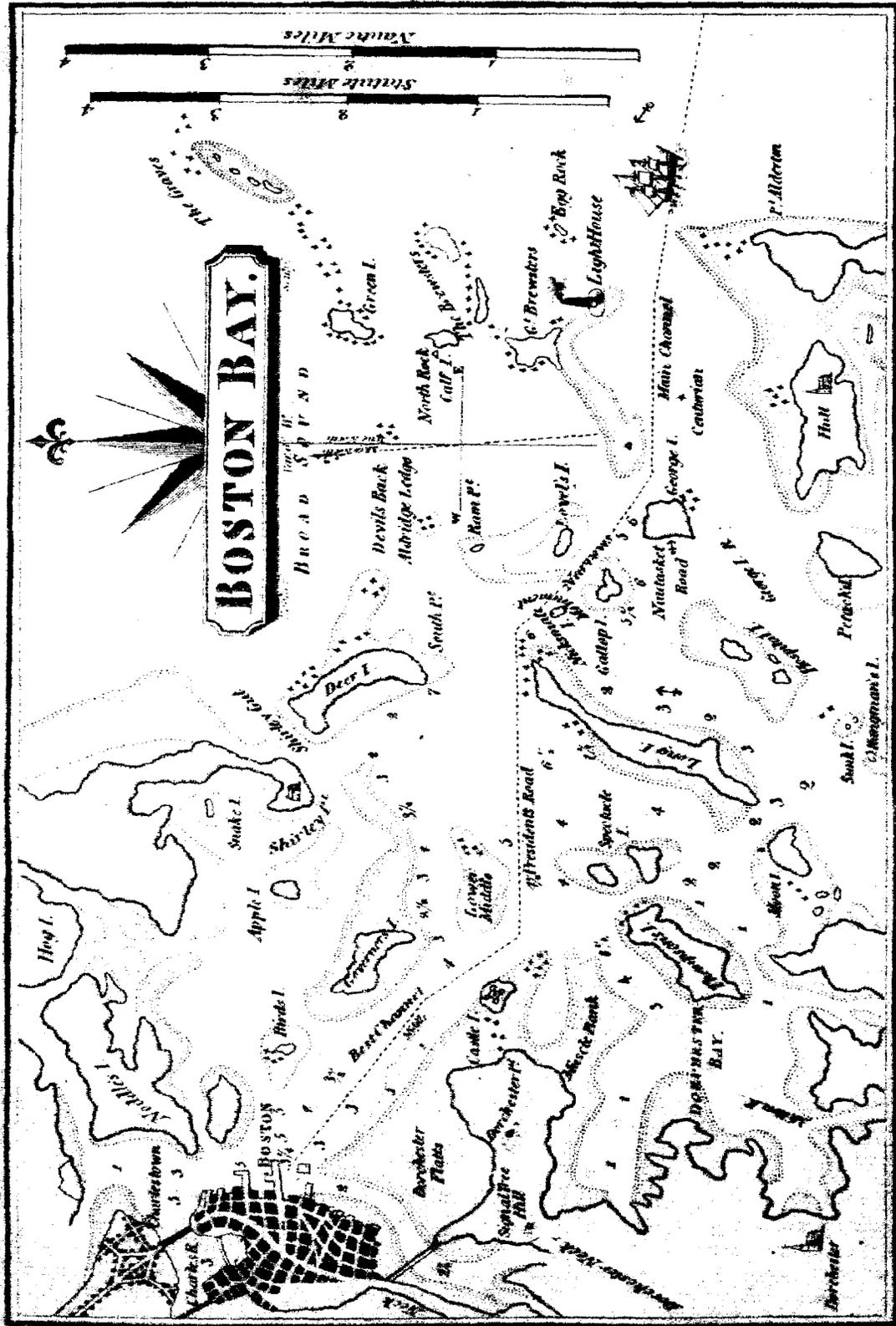
Remarks on Cashe's Ledge.

(BY AN EXPERIENCED NAVIGATOR.)

I TOOK my departure from Thatcher's island, which lies 2 miles to the eastward of Cape Ann; the island bore from me N. 3 miles distant: from the bearing I steered E. $\frac{1}{2}$ N. 65 miles, with a fair wind, and fell in with the north part of the bank, where Cashe's ledge is, about 2 leagues to the northward of the shoal, in 60 fathoms, hard black clay. This bank lies N. and S. 7 leagues, and

† On this Rock is erected a Monument painted white at the bottom and black at the top, being about 8 feet in the base, and 15 in height. Strangers will observe that the course from Half way rock to Marblehead fort is W. by N. $\frac{1}{4}$ N. 3 miles distant, leaving the beacon which is placed on Cat island rock on the starboard hand, and the monument on the larboard hand; the monument bears from the beacon W. by S. $\frac{1}{4}$ S. distance $\frac{3}{4}$ of a mile.

Approved for the American Coast Pilot.



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east and west 2 leagues; and in the centre of the bank is the shoalest ground. Its length and breadth is one quarter of a mile. There are on it in some parts 10 fathoms, in others only $4\frac{1}{2}$, all exceeding rocky. In the length of a boat you will have from 10 to $4\frac{1}{2}$ fathoms, and there are 17 fathoms within a cable's length of the shoal, which gradually deepens as you stand from it, all over the bank, to 90 fathoms, at this soundi g you are on the edge of the bank. You will in general have upon the bank oozy and sandy bottom, with black stones and broken shells, till you get into 25 or 30 fathoms, it then becomes rocky. The current sets exceeding strong and irregular; in less than an hour it will run all round the compass. All ships and vessels should endeavour to steer clear of this shoal, for I am persuaded, that in a fresh gale of wind they must strike; if not the sea must run so as to founder them.

By 4 days observation, the weather being exceeding clear, found the shoal to lie in lat. $43^{\circ} 04' N$, long. $69^{\circ} 11' W$.

Directions for sailing into Boston Harbour.

IF bound to Boston from the southward, cross George's bank in latitude $42^{\circ} 10' N$, in which the shoalest water you have will be 36 fathoms, from which you steer W. by N. $\frac{1}{4} N$. 45 leagues, and if clear weather you will see Cape Ann on your starboard hand and *Cape Cod on your larboard hand. Take care not to go to the northward of $42^{\circ} 40'$, for fear of Cashe's ledge, which lies E. $\frac{1}{4} N$. 23 leagues from Cape Ann. From Cape Ann, when to the eastward of the graves, to Boston † light house the course is S. W. $\frac{1}{2} S$. distance $8\frac{1}{2}$ leagues. After making the light, with the wind fair, you will bring it to bear W. by N. or W. N. W. and then run for it, till you come within two cables length of it. If the weather is bad, and you cannot get a pilot from the light-house, after running abreast of it so as to bring it to bear N. by E. you may run W. by S. about $1\frac{1}{2}$ mile to Nantasket road, where you may anchor in from 7 to 5 fathoms in safety.

To work into Boston bay you may stand to the southward till you bring the light to bear W. N. W. and to the northward till you bring it to bear W. S. W. till you come within 1 league of the light; then you must not stand to the northward any further than to bring it to bear W. by N. and to the southward to bring it to bear W. N. W. You may anchor in the bay with safety if the wind is off the shore. If you fall to the southward of Boston harbour, be careful to avoid Cohasset rocks, which lie above water some distance from the land, the outer part of which, called Minot's rock, has a black buoy on it, that lies in 5 fathoms water, which you leave on your larboard hand. Your course from this buoy to the light-house is N. W. $\frac{1}{2} N$. distant 3 leagues. In running the above course and distance, you will pass a white buoy which lies in 4 fathoms water, that is on the N. E. part of Harden's rocks, and bear S. E. $\frac{1}{4} S$. from the light-house, distant $1\frac{1}{2}$ leagues, which rocks may be seen 2 hours before low water, that you also leave on your larboard hand. There is another buoy on your larboard hand, which is red, that lies in three fathoms water on Point Alderton. When in the middle of the light-house channel steer W. by N. 1 mile distant to the beacon on the spit, which you may run within one quarter of a cable's length of, leaving it on your starboard hand, opposite to which lies a black buoy in 2 fathoms water, on George's island rocks. Between the light-house and George's island lies a rock called the Centurion, in mid-channel, with 15 feet water on it. Your course from this to Gallop's island point, is N. W. by N. half a mile dis-

* Cape Cod is low sandy land. Cape Ann is middling high, with many trees on it. There is a remarkable land called Pigeon hill, which appears like a boat bottom up.

† Boston Light-house stands on a small island on the north entrance of the channel, (Point Alderton and Nantasket heights being on the south,) and is about 65 feet high. It contains a REVOLVING LIGHT, on Lewis' improved plan, and will appear brilliant forty seconds, and be obscured 20 seconds, alternately. Two huts are erected here with accommodations for shipwrecked seamen. A cannon is lodged and mounted at the Light-house, to answer signals.

tant. From thence through the narrows by Nick's mate, your course is N. N. W. half a mile distant. Nick's mate has a monument on it, and must be left on your larboard hand, 1 cable's length distant, and then steer W. by N. for Castle island, distant 4 miles, when you will see a white buoy, which is on the Castle rocks in 2 fathoms, which you leave on your larboard hand. When abreast of the Castle, steer N. N. W. one quarter of a mile, to clear the upper middle ground, which has a black buoy on it in 2 fathoms water, that you leave on your larboard hand; if the buoy should be removed, run N. N. W. till you bring the two northernmost steeples in Boston a handspike's length open, then steer N. W. by W. $2\frac{1}{2}$ miles, which will carry you opposite the town.

Broad Sound, which is the north entrance of Boston harbour, is not a proper channel for large vessels, but those who frequent it will follow the directions here given: When up with the Graves, which are a parcel of dry rocks that appear white, you must leave them on your larboard hand, 1 cable's length distant, then bring them to bear S. E. and run S. W. by W. 4 miles, when you will be up with Long island head, which is high and bluff, with two remarkable trees on it, that you leave on your larboard hand. In passing from the Graves to Long island head, you will see 2 buoys on your larboard hand, one of which is on a reef called the Devil's back, is painted red, and lies in 4 fathoms water; the other on Ram-head bar, which is black, and lies in 15 feet water; you will also pass a white buoy on your starboard hand, which lies on the N. E. point of Faun bar, in $2\frac{1}{2}$ fathoms, when you must follow the directions above for the town.

A black buoy with a white vane has been placed near the Barrel Rock, which lies in the Broad sound channel, at the entrance of Boston Harbour. The buoy is moored about 7 fathoms N. E. from the rock, in $3\frac{1}{2}$ fathoms water, about $1\frac{1}{2}$ mile W. by S. from the body of the Graves—one half mile N. W. from the Devil's back—W. N. W. from the house on Green island—and N. E. $\frac{3}{4}$ E. from the tree on Long island head. This rock is 10 or 12 feet long, and 5 or 6 feet wide, ranging N. N. W. and S. S. E. having 4 or 5 feet of water upon it at low tide, and $3\frac{1}{2}$ fathoms round it—vessels may pass with safety either side of the buoy, giving it a birth of 12 or 15 fathoms.

The Lower middle ground lying in the way, the directions are as follow, viz.

On the Lower middle ground, which lies on the north side of the channel, a little above Spectacle island, (which is in part dry at low water,) on the eastern part of which is a red buoy, and on the western part a black buoy, in 2 fathoms water, which you must leave on your starboard hand.

Pudding Point, or Shirley gut entrance, is between Faun bar and Winship's bar. You must bring it to bear S. W. and run for it, leaving Shirley point on the starboard and * Deer island on the larboard hand. The channel from this gut to Boston is so crooked and narrow, that no person should attempt to go in with a large vessel, unless acquainted, without a pilot.

Vessels outward bound, from Boston light-house, who would wish to fall in with Cape Cod, the course is E. S. E. distant 11 leagues, thence 3 leagues to the light-house. When up with the light-house, and it bears S. W. 2 leagues distant, you may then steer S. S. E. which will carry you out of the south channel.

Vessels in Boston bay, who would wish to put away for Cape Cod harbour, must endeavour to fall in with Race Point Light-House, which contains a revolving light, [see page 140.] Should you first make Cape Cod Light bring it to bear E. by N. and run for it until you have soundings in 14 or 15 fathoms water then steer N. E. until the light bears E. by S. then run in N. W. for the harbour.

When between Cape Ann and Cape Cod you will have from 35 to 19 fathoms water, which latter sounding is within 2 leagues of Boston light-house; the quality of the soundings is more to be depended on than the depth of the water. As you will find a difference of 5 or 6 fathoms in running a cable's length, you will

* * In the course of the winter of 1810-11, Deer-Island Point washed away, so that it is now covered at high water, and renders it dangerous for vessels coming in and going out through Broad Sound; a black buoy is therefore now placed near the Point. Vessels must run to the southward of said buoy.

observe that the quality of soundings is rough on Cape Ann side, and sandy on Cape Cod.

At full and change, it is high water off Race Point at 10 o'clock and 45 minutes. Vessels in leaving Cape Cod, bound to Boston, should calculate the tide, as the flood sets strong to the S. W.

N. B. The upper buoys will be taken up during the winter season. [See the Plate.]

Directions from Boston Light-house to Cape Elizabeth.

From Boston light-house to Thatcher's island, which lies 2 miles from Cape Ann, the course is N. E. and the distance $8\frac{1}{2}$ leagues; but to clear the Londoner, which you leave on your larboard hand when bound to Cape Elizabeth, the course is N. E. by E. About half way, and near the north shore, is a high bold rock, called Half way rock, of about 30 fathoms diameter, and lies S. W. by W. distant $7\frac{1}{2}$ miles, from the eastern point of Cape Ann.

From Thatcher's island, E. S. E. one quarter of a mile, lies a ledge of rocks, called the Londoner, which show themselves at half tide, and extend E. N. E. and W. S. W. distant 2 miles from the island. If you should be forced to the northward of Cape Ann, there is a very clear bay, called Ipswich Bay, and N. E. from it lies the harbour of Portsmouth, the entrance to which is formed by Great island on the west, and Gerrish's island on the east; on the former of which the town of New Castle is built.

From Cape Ann to the Isles of Shoals the course is N. $\frac{1}{2}$ E. distant 7 leagues. These isles are low and level, and near 2 miles in length. South from their west end, half a mile distant, lies a rock, which may be seen at half tide, and by giving the west end of these islands a birth of half a mile, a N. by E. course will carry you to the entrance of Portsmouth harbour, 8 miles distant.

Strangers should never attempt to go round the east end of these islands; but if driven thereto give them a birth of half a mile, and steer N. W. by N. which will carry you to Portsmouth. N. E. from the east end of these islands, 4 miles distant, lies York ledge, which is always to be seen, and extends N. E. and S. W. 2 miles. From York ledge to *Boon island the course is E. N. E. distant 9 miles. From Boon island to Boon island rock (on which the sea always breaks) the course is E. and the distance 3 miles. From Boon island to Wood island light-house, the course is N. N. E. distant 12 leagues, and from thence to Cape Elizabeth the course is N. E. $\frac{1}{2}$ E. and the distance 4 leagues.

Directions for sailing in and out of Boston Bay, from Cape Cod, or Cape Ann, to Boston Light-house.

BOSTON light-house stands on a small island at the north entrance of the channel, and is about 65 feet high. It contains a REVOLVING LIGHT, on Lewis' improved plan, and will appear brilliant forty seconds and obscured twenty seconds, alternately. To steer for it from Cape Cod your course is W. N. W. when within one league of the Cape. From the Race point light-house to Boston light-house is about 11 leagues. From Cape Ann to Boston light-house the course is S. W. $\frac{1}{2}$ S. distant $8\frac{1}{3}$ leagues.

The next light-houses on the coast eastward, are those on Thatcher's island—an island which contains about 30 acres of land, secured by an iron bound shore, and is situated about 2 miles east of the main land of Cape Ann. This island affords no harbour, nor is there any safe anchorage very near it; there is a passage between that and the main, through which small vessels may pass even at low tide; but the water is shoal and the bottom covered by a collection of large round stones. The light-houses were erected there for the benefit of vessels coming in from sea, as well as for those coasting around the shores. As soon as

* Boon island is very low land, about one quarter of a mile in length, and has a light-house on it bearing N. W. $\frac{1}{2}$ N. from Cape Neddock, two leagues distant.

these lights are discovered they can know their real situation; for being two lights, they cannot be taken for the single revolving light at Boston harbour, or for the Plymouth lights, where there are also two, but the distance between them is only 11 feet and 6 inches, while the distance between those on Thatcher's island is about one fourth of a mile, and can be brought to range one with the other when you are abreast of the island, and bear N. by E. and S. by W. from each other, and those on Plumb island bear E. by N. and W. by S. from each other. But the Plymouth lights cannot be so arranged from the north until you are on the shore, and from the south only when you are near in with the land. The lights on this island are of great use to all vessels in their passage in or out, as they point out the situation of the Salvages on the north, and the Londoner on the south. Besides, from the different bearings of the lights, a safe departure may be taken for the different harbours in the bay, as well as for those bound northerly and to sea. For remarks more minute, you will find them in the directions for sailing to Boston light, to Baker's island, and to those on Plumb island, at the mouth of Newburyport harbour.

Directions for Scituate Harbour.

THE Light-House at the entrance of Scituate Harbour was erected more for the benefit of foreigners, who fall into the bay southward of Cohasset Rocks; and as a guide to southern coasters to avoid Cedar point, which is flat, and projects into the bay beyond the Clifts, than for any advantages to be derived from the harbour, which is small, having only about 12 feet water on the bar at high water, middling tides. There is one light which is fixed; and thereby distinguishable from Boston light, on the north, which is a repeating light; and Plymouth lights on the south, which show two lights; (or Lanterns on the same building.) Scituate Light-house is erected on Cedar point, which makes the north chop of the harbour, the first clift (so called) making the south chop. There are four of these clifts extending towards the north main; the southernmost of which is the highest.

From the body of the light-house, the northerly part of Cedar point and a ledge called Long ledge, extends N. N. W. nearly one mile; so that vessels falling in a little more than one mile northward of the light, may bring the light to bear south; and if they make good their course north, they will clear the outer ledges of Cohasset rocks; half a mile east of the body of the light will clear Cedar point, long ledge, and the first clift ledge. [Note—there are ledges extending from all the four clifts, but none between them, and half a mile from the shore will clear all except from frigates and large vessels.]

From the body of the light, running S. S. E. will clear Branche's point; consequently, giving the light half a mile birth, there will be no danger in running S. S. E.

There is a passage within Cohasset rocks, used by coasters, which is found by giving the light half a mile birth, and running N. W. by N. to the southerly entering rock.

There is a meeting house about two miles W. by N. from the light; and a farm house near the northwest side of the harbour, with two large barns a little north. To go into the harbour, (the mouth of which is about one third of a mile wide,) bring the meeting house or farm house to bear about W. by N. from the middle of the entrance of the harbour, and run in W. by N. for the farm house, until you have passed the bar, which is a hard bed of stones and gravel that does not shift; and after passing the bar, and coming on sandy bottom, haul up and anchor near the beach on the south side of the harbour.

*Directions for *Plymouth Harbour.*

THE high land of the Monument bears from the lights S. $\frac{1}{4}$ W. 3 miles, and

* This harbour is capacious, but shallow, and is formed by a long and narrow neck of land, called Salt-house beach, extending southerly from Marshfield, and terminating at the Gur-

*Monument point S. S. E. 3 leagues, and Branche's point N. $\frac{1}{2}$ W. about 3 leagues, Saquash head W. $\frac{1}{2}$ S. 3 miles, the easternmost part of Brown's islands or shoal that dries, S. S. W. $1\frac{1}{4}$ mile, and the Gurnet rock from the body of the light-house E. by S. $\frac{3}{4}$ S. one third part of a mile; on this rock you have but 3 feet at low water, at which time all the soundings were taken. When you have shut in the Sandy hill with the Gurnet head, you are clear of the rock; after which you must mind not to haul in too close to the head, as there are many sunken rocks some distance from the shore. When you bring Saquash head to bear W. by N. you may then steer up W. by S. and if you are bound for Plymouth, you must keep that course for a large red cliff on the main, which is a very good mark to carry you clear of Dick's flat; then you must steer more southerly for Beach point, or run up until you are abreast of Saquash head, giving it one quarter of a mile distance; then steer W. by S. $\frac{1}{2}$ S. which will clear you of Dick's flat, and carry you directly for Beach point, keeping within 15 or 20 yards of the Sandy point, steering away for the southward, keeping that distance until you have shut in the lights, where you may anchor in 3 and 4 fathoms, but the channel is very narrow, having nothing but a flat all the way to Plymouth, except this small channel, which runs close by this neck of land; you will have 4 and 5 fathoms close to this point. If you are bound into the Cowyard, you must steer as before directed, which will clear you of Dick's flat and the Muscle bank, observing to keep the house on the Gurnet head just open with Saquash head, until you have opened the High Pines with Clerk's islands; then you are clear of the Muscle bank, when you may steer N. W. until you have 3 fathoms at low water, not running into less.

In coming from the northward, bound into Plymouth, you must not bring the lights more southerly than S. by W. to avoid High Pine Ledge, which lies north from the Gurnet head about $2\frac{1}{2}$ or 3 miles. When you are on the shoalest part of this ledge, some part of which appears at low ebbs, you will have the High Pines in range with Captain's hill, which will then bear W. by S. This ledge of rocks lies $1\frac{1}{2}$ mile from the shore, extending about N. N. E. for near a mile, and close to this ledge you will have 4 and 5 fathoms, which deepens gradually as you run from it to the eastward; within 1 mile you will have 10 and 12 fathoms.

In coming from the southward, bound into Plymouth, you must not open the northern light to the westward, but keep them in one, which will carry you in 5 fathoms by the easternmost part of Brown's islands or shoal, keeping that course until you are within half a mile of Gurnet head, or nigher, where you will have but 4 fathoms; then Saquash head will bear W. by N. a little northerly, and the 2 outermost trees on the head in one; then you may steer directly for them, until you bring the light-house to bear E. N. E., and the house on Saquash head to bear N. W., just open with the first Sandy beach, where you may anchor in 4 fathoms in Saquash road, good clear bottom; but if you are bound for Plymouth, or the Cowyards, you must steer as before directed. If in the night, it is best to anchor here, as it is difficult to make Beach point, if dark, or to go into the Cowyard.

In turning into Plymouth, you must not stand to the northward into less than 3 fathoms, as it runs a flat a long way from the Gurnet head to Saquash; and from both the heads lies off a point of rocks a good way from the shore, many of them but just under water at low ebbs. And all the way from Saquash to the Muscle bank, you have shoal water; so that you must not stand in less than before mentioned. And in standing over for the sands to the southward, you must go about

net head, and by a smaller beach within, running in an opposite direction, and connected with the main land near Eel river, about 3 miles from the town. There are two light-houses on the Gurnet, which are about 86 feet above the surface of the sea, and cannot be brought into one to the northward, unless you are on the shore. But to the southward you may bring them in one, which is a very good mark to clear you of Brown's island or Sand bank. On Salt-house beach is placed one of the huts erected and maintained by the Humane Society of Massachusetts, for the reception and relief of shipwrecked mariners. There is a breach in the inner beach, which exposes the shipping, even at the wharves, during an easterly storm. The Gurnet is an eminence at the southern extremity of the beach.

* Monument Bay (from which the point takes its name) is formed by the bending of Cape Cod. It is spacious and convenient for the protection of shipping.

as soon as you have shoalen your water to 4 fathoms, as it is bold too, and you may observe the rips, unless it is very smooth. This sand extends from abreast of the lights to Beach point, most of which is dry at low ebbs. From the easternmost part of this sand to Dick's flat it rounds with a considerable sweep; you have but 5 fathoms water from the easternmost part of Brown's island to the Gurnet head, and not more than 7 or 8 until you are abreast of Dick's flat, where you will have 13 or 14 fathoms in a deep hole, and then shoalen to 5 fathoms abreast of Beach point.

If you should fall into the southward of Brown's islands or shoal, between them and the Monument land, where you have 20 fathoms in some places, you must not attempt to run for the lights, until you have them shut in one with the other, when they will bear N. N. W. $\frac{1}{2}$ W.; if you do, you may depend on being on Brown's islands or shoal, as there is no passage for even a boat at low water.

In coming in from the northward in the night, you must not bring the light to bear more southerly than S. by W. to avoid High Pine Ledge, and keep that course until you have them to bear N. W. or N. W. by W. when you will be clear of the rock, and may steer up W. by S. until you have the lights to bear E. N. E. where you had best anchor in the night. Here the tide runs strong channel course from the Gurnet to the Race point of Cape Cod; the course is E. $\frac{1}{2}$ N. about 6 leagues distance; and from the Gurnet to the point going into Cape Cod harbour, is E. by S. 7 leagues. If you should make the lights in hard northerly, or N. W. winds, and cannot get into Plymouth, you may then run for Cape Cod harbour, bringing the lights to bear W. by N. and steer directly for the harbour, which you may do unless it is very dark, as it is bold too—and you may see the Sandy hills before you can get on shore. You may keep within 100 yards of the shore until you are up with the point that runs out to the eastward, which you must give a quarter of a mile distance, and then steer up N. W. If it should blow so hard that you cannot turn up the harbour, you may anchor off the point, clear bottom; you have 8 and 9 fathoms very nigh the shore, so that there is no danger of being on it, unless very dark.

At the Gurnet and Plymouth the tides are much the same as at Boston; that is, a S. E. moon makes full sea.

Directions for Cape Cod Harbour.

IF you wish to go into Cape Cod harbour, you may pass within one quarter of a mile of the light on *Race Point. After passing it, bring it to bear N. N. W. and S. S. E.; run until the light on the Highland bears E. by N. when you will be clear of Wood end Bar, then N. E. to bring the light on the Highland to bear E. $\frac{1}{2}$ S. when haul up N. W. for the harbour, and anchor in four fathoms.

Good anchorage may be found in a N. E. gale, by running for the light, giving it one third of a mile distance as you pass it; as soon as it bears E. by N. haul up E. S. E. and anchor in from 10 to 4 fathoms.

In passing Race point to the southward, you must give it a birth of 1 mile, as there is a long flat of sand that lies to the southward of said point. You must not haul to the eastward till you come near Herring cove.

Vessels inward bound, who fall in with the back of Cape Cod, may bring the light to bear S. W. 2 leagues distant, and then steer W. N. W. for Boston light-house, which contains a Revolving Light.

When up with Race point, you will find it very bold about 3 leagues to the westward of the light-house, and it may be known by a number of fish-houses on it. From 1 to 3 miles to the southward of Race point is what is called Her-

* There is a light-house erected on the extreme point of Race point, which contains a REVOLVING LIGHT, (on the same plan as Boston light,) to distinguish it from the one on Highland of Cape Cod, but it cannot be seen from vessels coming from sea until it bears S. S. W. $\frac{1}{2}$ S. when they run for it. The light is 25 feet above the level of the sea, and 155 feet from high water mark.

† The light-house is erected on land at the Clay pounds, elevated about 150 feet, which, with the elevation of the lanthorn, makes the whole height 200 feet above high water mark. It contains a FIXED LIGHT.

ring cove, where you may have good anchorage half a mile from the shore, the wind from E. to N. N. E. in 4 or even in 3 fathoms water.

If bound into Cape Cod harbour, your course from Race point to Wood end is S. S. E. 6 miles distance. Bring the light to bear E. by N. and run for it about 2 miles; you will then be clear of Wood end—then you must steer N. E. until the light bears E. by S., then run N. W. for the harbour, until you have from 4 to $3\frac{1}{2}$ fathoms water, where you will have good anchoring; the light will then bear E. by S. $\frac{1}{2}$ S. 5 or 6 miles distance.

In running from Race point to Wood end, after you pass the Black land or Hummocks, you will come up with a low sandy beach which forms the harbour, extending between 2 and 3 miles to Wood end, which is difficult to be distinguished in the night; it is very bold, and you will have 25 fathoms water within half a mile of the shore.

In beating into Cape Cod harbour you must keep the eastern shore aboard until you get into 5 fathoms water. Stand no further to the westward than to bring the light to bear E. by S. as there is a long spit of sand runs off from the western shore, which being very bold, you will have 11 fathoms water within a stone's throw of the shore.

If it blows so hard that you cannot beat into the harbour, you will have good anchoring without, from 10 to 15 fathoms water. Or if it blows hard at N. E. bring Race point to bear N. W. by N. and steer S. E. by S. 7 leagues, which course will carry you into Wellfleet, formerly called Billengale. In steering this course you will make Harwich right a-head. When you open the bay you will bring an island on your larboard hand, when you may haul to the eastward, and anchor safe from all winds.

Description of the eastern coast of the county of Barnstable, from Cape Cod, or Race point, in lat 42° 5' N. to Cape Malebarre, or the Sandy Point of Chatham, in lat. 41° 34' N. pointing out the spots on which the Trustees of the Humane Society have erected Huts, and other places where shipwrecked Seamen may look for shelter.

THE curvature of the shore, on the west side of Provincetown, and south of Race Point, is called Herring Cove, which is three miles in length. There is good anchoring ground here, and vessels may ride safely in four or five fathoms water, when the wind is from north-east to south-east.

On Race Point stand about a dozen fishing huts, containing fire-places and other conveniences. The distance from these huts to Provincetown, which lies on Cape Cod harbour, is three miles. The passage is over a sandy beach, without grass, or any other vegetable growing on it, to the woods, through which is a winding road to the town. It would be difficult, if not impossible, for a stranger to find his way thither in the dark; and the woods are so full of ponds and entangling swamps, that if the road was missed, destruction would probably be the consequence of attempting to penetrate them in the night.

Not far from Race Point commences a ridge, which extends to the head of Stout's Creek. With the face to the east, on the left hand of the ridge, is the sandy shore; on the right is a narrow sandy valley; beyond which is naked sand, reaching to the hills and woods of Provincetown. This ridge is well covered with beach grass, and appears to owe its existence to that vegetable.

Beach grass, during the spring and summer, grows about two feet and a half. If surrounded by naked beach, the storms of autumn and winter heap up the sand on all sides, and cause it to rise nearly to the top of the plant. In the ensuing spring, the grass sprouts anew; is again covered with sand in the winter, and thus a hill or ridge continues to ascend, as long as there is a sufficient base to support it, or till the circumscribing sand, being also covered with beach grass, will no longer yield to the force of the winds.

On this ridge, half way between Race Point and the head of Stout's Creek, the Trustees of the Humane Society have erected a hut. It stands a mile from Peaked Hill, a land-mark well known to seamen, and is about $2\frac{1}{2}$ miles from Race Point. Seamen cast away on this part of the coast, will find a shelter here; and in north-east storms, should they strike to the leeward of it, and be unable to turn their faces to the windward, by passing on to Race Point, they will soon come to the fishing huts before mentioned.

At the head of Stout's Creek the Trustees have built a second hut. Stout's Creek is a small branch of East Harbour in Truro. Many years ago there was a body of Salt Marsh on it; and it then deserved the name of a creek. But the marsh was long since destroyed; and the creek now scarcely exists, appearing only like a small depression in the sand, being entirely dry, and now principally covered with beach grass. The creek runs from north-west to south-east, and is nearly parallel with the shore on the ocean, from which it is at no

great distance. Not far from it the hills of Provincetown terminate; and should not the hut be found, by walking round the head of the creek, with the face to the west, the hills on the right hand, and keeping close to the shore on the harbour, in less than an hour the shipwrecked seaman would come to Provincetown. It is high water at Truro about 30 minutes sooner than at Boston.

The Humane Society, several years ago, erected a hut at the head of Stout's Creek. But it was built in an improper manner, having a chimney in it, and was placed on a spot where no beach grass grew. The strong winds blew the sand from its foundation, and the weight of the chimney brought it to the ground, so that in January, 1802, it was entirely demolished. This event took place about six weeks before the Brutus was cast away. If it had remained it is probable that the whole of the unfortunate crew of that ship would have been saved, as they gained the shore a few rods only from the spot where the hut had stood.

The hut now erected stands on a place covered with beach grass. To prevent any accident from happening to it, or to the other hut near Peaked Hill, the Trustees have secured the attention of several gentlemen in the neighbourhood. Dr. Thaddeus Brown, and Capt. Thomas Smalley, of Provincetown, have engaged to inspect both huts, to see that they are supplied with straw or hay in the autumn, that the doors and windows are kept shut, and that repairs are made when necessary. The Rev. Mr. Damon, of Truro, has also promised to visit the hut at Stout's Creek twice or thrice a year; and the Rev. Mr. Whitman, of Wellfleet, distinguished through the country for his activity and benevolence, has undertaken, though remote from the place, the same charge.

From the head of Stout's Creek to the termination of the salt marsh, which lies on both sides and at the head of East Harbour river, the distance is about $3\frac{1}{2}$ miles. A narrow beach separates this river from the ocean. It is not so regular a ridge as that before described, as there are on it one or two hills which the neighbouring inhabitants call islands. It may without much difficulty be crossed everywhere, except over these elevations. By these hills, even during the night, the beach may be distinguished from those hereafter to be mentioned. It lies from N. W. to S. E. and is in most parts covered with beach grass. The hills have a few shrubs on the declivities next the river. At the end of the marsh the beach subsides a little, and there is an easy passage into a valley in which are situated two or three dwelling houses. The first on the left hand, or south, is a few rods only from the ocean.

The shore, which extends from this valley to Race Point, is unquestionably the part of the coast the most exposed to shipwrecks. A N. E. storm, the most violent, and fatal to seamen, as it is frequently accompanied with snow, blows directly on the land; a strong current sets along the shore; add to which, that ships, during the operation of such a storm, endeavour to work to the northward, that they may get into the bay. Should they be unable to weather Race Point, the wind drives them on the shore, and a shipwreck is inevitable. Accordingly, the strand is everywhere covered with the fragments of vessels. Huts, therefore, placed within a mile of each other, have been thought necessary by many judicious persons. To this opinion the Trustees are disposed to pay due respect; and hereafter, if the funds of the Society increase, new huts will be built here for the relief of the unfortunate.

From the valley above mentioned the land rises, and less than a mile from it the high land commences. On the first elevated spot (the Clay Pounds) stands the Light-house, which contains a **FIXED LIGHT**, which every Navigator should impress on his mind. The shore here turns to the south; and the high land extends to the table land of Eastham. This high land approaches the ocean with steep and lofty banks which it is extremely difficult to climb, especially in a storm. In violent tempests, during very high tides, the sea breaks against the foot of them, rendering it then unsafe to walk on the strand, which lies between them and the ocean. Should the seaman succeed in his attempt to ascend them, he must forbear to penetrate into the country, as houses are generally so remote, that they would escape his research during the night; he must pass on to the valleys, by which the banks are intersected. These valleys, which the inhabitants call Hollows, run at right angles with the shore; and in the middle, or lowest part of them, a road leads from the dwelling-houses to the sea.

The first of these valleys is Dyer's Hollow, $1\frac{1}{2}$ mile south of the light-house. It is a wide opening, being 200 rods broad, from summit to summit. In it stands a dwelling-house, a quarter of a mile from the beach.

A mile and a half south of Dyer's Hollow, is a second valley, called Harding's Hollow. At the entrance of this valley the sand has gathered, so that at present a little climbing is necessary. Passing over several fences, and taking heed not to enter the wood on the right hand, at the distance of three quarters of a mile a house is to be found. This house stands on the south side of the road; and not far from it, on the south, is Pamet river, which runs from east to west through a body of salt marsh.

The third valley, half a mile south of Harding's Hollow, is Head of Pamet Hollow. It may with ease be distinguished from the other hollows mentioned, as it is a wide opening, and leads immediately over a beach to the salt marsh at the head of Pamet river. In the midst of the hollow the sand has been raised by a brush fence, carried across it from north to south. This must be passed, and the shipwrecked mariner will soon come to a fence which separates what is called the road from the marsh. If he turns to the left hand, or south at the distance of a quarter of a mile, he will discover a house. If he turns to the right hand at the distance of half a mile, he will find the same house which is mentioned in the foregoing paragraph.

The fourth opening, three quarters of a mile south of Head of Pamet, is Brush Valley. This hollow is narrow, and climbing is necessary. Entering it, and inclining to the right, three quarters of a mile will bring seamen to the house, which is situated at the head of Pamet. By proceeding straight forward, and passing over rising ground, another house may be discovered, but with more difficulty.

These three hollows, lying near together, serve to designate each other. Either of them may be used; but Head of Pamet Hollow is the safest.

South of Brush Valley, at the distance of 3 miles, there is a fifth opening, called Newcomb's Hollow, east of the head of Herring river in Wellfleet. This valley is a quarter of a mile wide. On the north side of it, near the shore, stands a fishing hut.

Between the two last valleys the bank is very high and steep. From the edge of it, west, there is a strip of sand, 100 yards in breadth. Then succeeds low brushwood, a quarter of a mile wide, and almost impassable. After which comes a thick, perplexing forest, in which not a house is to be discovered. Seamen, therefore, though the distance between these two valleys is great, must not attempt to enter the wood, as in a snow storm they would undoubtedly perish. This place, so formidable in description, will however lose somewhat of its terror, when it is observed, that no instance of a shipwreck on this part of the coast is recollected by the oldest inhabitants of Wellfleet.

Half a mile south of Newcomb's Hollow, is the sixth valley, called Pearce's Hollow. It is a small valley. A house stands at the distance of a little more than a quarter of a mile from the beach, W. by S.

The seventh valley is Cohoon's Hollow, a half of a mile south of Pearce's Hollow. It is not very wide. West from the entrance, several houses may be found at the distance of a mile. This hollow lies E. by N. from Wellfleet meeting-house.

Two miles south of Cohoon's Hollow, the eighth valley is Snow's Hollow. It is smaller than the last. West from the shore, at the distance of a quarter of a mile, is the county road, which goes round the head of Blackfish creek. Passing through this valley to the fence, which separates the road from the upland and marsh at the head of the creek, a house will immediately be found by turning to the right hand, or north. There are houses also on the left, but more remote.

The High land gradually subsides here, and $1\frac{1}{2}$ mile south terminates at the ninth valley, called Fresh Brook Hollow, in which a house is to be found a mile from the shore, west.

The tenth, $2\frac{1}{2}$ miles south from Fresh Brook Hollow, is Plumb Valley, about 300 yards wide. West is a house, three quarters of a mile distant.

Between these two valleys is the Table Land.

After this there is no hollow of importance to Cape Malebarre.

From Fresh Brook Hollow to the commencement of Nauset beach, the bank next the ocean is about 60 feet high. There are houses scattered over the plain, open country; but none of them are nearer than a mile to the shore. In a storm of wind and rain they might be discerned by day light; but in a snow storm, which rages here with excessive fury, it would be almost impossible to discover them either by night or by day.

Not far from this shore, south, the Trustees have erected a third hut, on Nauset beach. Nauset beach begins in latitude $41^{\circ} 51'$, and extends south to latitude $41^{\circ} 41'$. It is divided into two parts by a breach which the ocean has made through it. This breach is the mouth of Nauset or Stage harbour; and from the opening, the beach extends north $2\frac{1}{2}$ miles, till it joins the main land. It is about a furlong wide, and forms Nauset harbour, which is of little value, its entrance being obstructed by a bar. This northern part of the beach may be distinguished from the southern part by its being of a less regular form. Storms have made frequent irruptions through the ridge, on which beach grass grows. On an elevated part of the beach, stands the hut, about $1\frac{1}{2}$ mile N. of the mouth of Nauset harbour. Eastham meeting-house lies from it W. by S. distant $1\frac{1}{2}$ mile. The meeting-house is without a steeple; but it may be distinguished from the dwelling-houses near it by its situation, which is between two small groves of locusts, one on the south, and one on the north, that on the south being three times as long as the other. About $1\frac{1}{2}$ mile from the hut, W. by N. appear the top and arms of a wind-mill. The Rev. Mr. Shaw, and Elisha Mayo, Esq. of Eastham have engaged to inspect this building.

The southern part of Nauset beach, most commonly called Chatham beach, and by a few persons Potanumaquint beach, begins at the mouth of Nauset harbour, and extends 3 or 9 miles south to the mouth of Chatham harbour. It is about 50 rods wide. A regular, well formed ridge, which, in the most elevated part of it is 40 feet high, runs the whole length of it; and, with the exception of a few spots, is covered with beach grass. This beach forms the barrier of Chatham harbour, which, from Strong island, north, receives the name of Pleasant bay. A mile south of the entrance of Nauset harbour, it joins the main land of Orleans, except in very high tides, when the sea flows from the north-eastern arm of Pleasant bay into the harbour of Nauset, completely insulating the beach. By those who are acquainted with the shallow, it may be safely forded at any time; but strangers must not venture to pass it, when covered with water, as below, the channel is 7 feet deep. On this beach, about half way between the entrances of Nauset and Chatham harbours, the Trustees have erected a fourth hut. The spot selected is a narrow part of the beach. On the west, the water adjoining it is called Bass Hole. Salt marsh is north and south of it next the beach, but is here interrupted. Orleans meeting-house lies from it N. W. The

meeting-house is without a steeple, and is not seen; but it is very near a wind-mill placed on an elevated ground, a conspicuous object to seamen coming on the coast. It may be necessary to add that there are three wind-mills in Orleans, forming a semi-circle, that the mill referred to is on the right hand, or N. E. point, and that the mill in the middle point of the semi-circle stands on still higher ground. The meeting-house of Chatham is situated from it S. W. This meeting-house is also without a steeple, and is concealed by Great Hill, a noted land-mark. The hill appears with two summits, which are a quarter of a mile apart. The hut lies east from Sampson's island in Pleasant bay. Timothy Bascom, of Orleans, has undertaken to inspect this hut.

Let seamen should miss this hut, by striking to the leeward of it, the Trustees have erected another on the same beach. It stands a mile north of the mouth of Chatham harbour, east of the meeting-house, and opposite the town.

Another spot on the same beach would be a proper situation for a hut. It is north of the fourth hut, and east of the middle of Pochet island. The highest part of the ridge is near it, S. A break in the ridge, over which the sea appears sometimes to have flowed, divides this high part from the northern portion of the beach.

On the beach of Cape Malebarre, or the sandy point of Chatham, the Trustees have built a sixth hut. This beach stretches from Chatham 10 miles into the sea, towards Nantucket; and is from a quarter to three quarters of a mile in breadth. It is continually gaining south; above three miles have been added to it during the past 50 years. On the east side of the beach is a curve in the shore, called Stewart's Bend, where vessels may anchor with safety, in 3 or 4 fathoms of water, when the wind blows from N. to S. W. North of the bend there are several bars and shoals. A little below the middle of the beach, on the west side, is Wreck Cove, which is navigable for boats only. The hut stands 200 yards from the ocean, S. E. from the entrance of Wreck Cove, a half of a mile. Between the mouth of the cove and hut, is Stewart's Knoll, an elevated part of the beach. The distance of the hut from the commencement of the beach is 6 miles, and from its termination 4. Great Hill, in Chatham, bears N. by W. distant 6 miles; and the south end of Morris' island, which is on the west side of the beach, N. by E. distant 4 miles. Richard Sears, Esq. of Chatham, has engaged to visit the two last mentioned huts.

Two miles below the sixth hut is a fishing house, built of thatch, in the form of a wigwam. It stands on the west side of the beach, a quarter of a mile from the ocean. Annually in September it is renewed; and generally remains in tolerable preservation during the winter.

Another spot, a few rods from the sea, 4 miles south from the commencement of the beach, and half a mile north of the head of Wreck Cove, would be a proper situation for a hut. A little south of this spot, in storms and very high tides, the sea breaks over from the ocean into Wreck Cove.

Cape Malebarre beach may be distinguished from the two beaches before described, not only by its greater breadth, but also by its being of a less regular form. It is not so well covered with grass as Chatham beach. From Stewart's Knoll, south, to the extremity, it is lowest in the middle. In this valley, and in other low places, fresh water may be obtained by digging 2 feet into the sand. The same thing is true of Nauset and Chatham beaches.

The six huts, the situation of which has thus been pointed out, are all of one size and shape. Each hut stands on piles; is 8 feet long, 8 feet wide, and 7 feet high; a sliding door is on the south, a sliding shutter on the west, and a pole, rising 15 feet above the top of the building, on the east. Within, it is supplied either with straw or hay, and is farther accommodated with a bench.

The whole of the coast, from Cape Cod to Cape Malebarre, is sandy and free from rocks. Along the shore, at the distance of half a mile, is a bar, which is called the outer bar, because there are smaller bars within it, perpetually varying. This outer bar is separated into many parts by guzzles, or small channels. It extends to Chatham; and as it proceeds southward, gradually approaches the shore, and grows more shallow. Its general depth, at high water, is 2 fathoms, and 3 fathoms over the guzzles; and its least distance from the shore is about a furlong. Off the mouth of Chatham harbour there are bars which reach three quarters of a mile; and off the entrance of Nauset harbour the bars extend half a mile. Large, heavy ships strike on the outer bar, even at high water, and their fragments only reach the shore. But smaller vessels pass over it at full sea; and when they touch at low water, they beat over it as the tide rises and soon come to land. If a vessel is cast away at low water, it ought to be left with as much expedition as possible; because the fury of the waves is then checked, in some measure, by the bar; and because the vessel is generally broken to pieces with the rising flood. But seamen, shipwrecked at full sea, ought to remain on board till near low water; for the vessel does not then break to pieces; and by attempting to reach the land before the tide ebbs away, they are in great danger of being drowned. On this subject there is one opinion only among judicious mariners. It may be necessary, however, to remind them of a truth, of which they have full conviction, but which, amidst the agitation and terror of a storm, they too frequently forget.

[NOTE.—With all deference to the opinion of those who regulate and provide for Light-Houses on the Coast, we recommend the absolute necessity, that the greatest notoriety be given when any change is made in the mode of exhibiting Lights, which guide the Mariner, and on which his life often depends: We again repeat, "BOSTON LIGHT-HOUSE con-

tains a REVOLVING LIGHT, which will appear brilliant FORTY SECONDS, and be obscured TWENTY SECONDS, alternately.—CAPE COD Light-House is erected on the Clay Pounds, and contains a FIXED LIGHT; and the Light-House on Race Point, contains a REVOLVING LIGHT, and cannot be seen by vessels coming from sea till it bears S. S. W. $\frac{1}{4}$ S.]

*From Cape Cod to *Holmes' Hole.*

BRING Morris' island (which lies on the west side of Chatham beach) to bear N. N. W. then by steering S. S. E. $3\frac{1}{2}$ leagues, you will pass the Pollock rip, in 3 or 4 fathoms water; and if the weather is clear, you will make the light-house on Sandy point, (Nantucket island) $5\frac{1}{2}$ leagues distant, which bring to bear S. W. $\frac{1}{2}$ W. then steer for the light-house, keeping it in this direction, and you will pass between the great and little round shoals. When you are within about 2 miles of the light-house, steer W. N. W. until you are past the Point rip, or you may bring the light-house to bear E. by S. and steer W. by N. taking care to make your course good for Holmes' hole, 11 leagues distant.

To go through the Ship channel, steer from Morris' island S. S. E. until you pass the Pollock rip in 3 or 4 fathoms water; if the weather be clear, you will make the light-house: continue your course S. S. E.; S. by E. and S. until the light-house bears W. from you; then steer directly for it, until you are within 2 miles of it. You should then steer N. W. until the light-house bears S. W. by W. then steer W. by N. till the light-house bears E. S. E. and then steer W. N. W. making your course good for Holmes' hole. If you wish to anchor near the light-house, you may, after bringing it to bear S. by E. steer E. S. E. till the light-house bears N. and there come to anchor in 6, 7, or 8 fathoms water.

Directions for †Chatham Harbour.

THERE are two light-houses built at the mouth of Chatham harbour, on a place called James' Head. They consist of two separate buildings, with one light in each. One of these buildings stands on a slide, by which it is removed to conform to the alteration which is occasioned by the changes which take place at the entrance of the harbour. They bear from Nantucket light-house N. N. E. distant $10\frac{1}{2}$ leagues, and from the shoals N. N. W.

Bring the two Lights in range, and run direct for them over the bar.

Directions for sailing into Nantucket Harbour.

[NOTE—As the harbour of Nantucket is a resort for small vessels during the winter season, after leaving the Vineyard Sound, and the wind prevails at the northward, at which time it would not be prudent to go over the shoals, the Editor has inserted three different directions for sailing into it, either of which may be depended on.]

BRING the light-house on Brant point to bear S. S. E. $\frac{3}{4}$ E. and steer for it until you are about 2 cables' length from it; then steer S. E. by E. or E. S. E.

* Holmes' hole is a harbour to which vessels resort during the winter season, and as every master should embrace the first opportunity to advise his owner, we state there is a Post-office, and a regular mail made up twice a week for Boston, &c. which is taken in a passage boat to Falmouth, on the N. E. part of the Vineyard sound, 9 miles distant, from thence by land carriage to Sandwich, &c. Passengers will find a speedy conveyance from Falmouth.

† Chatham is situated on the exterior extremity of Cape Cod, bounded E. by the ocean, S. by Vineyard Sound, W. by Harwich, and N. by Pleasant Bay. Its situation is convenient for the fishery, in which they have usually about 40 vessels employed. Its harbour contains 20 feet water at low tide. The place is remarkable for many shipwrecks on its shores. Lat. $41^{\circ} 42'$ N. Long. $69^{\circ} 50'$ W. from Greenwich.

till Brant point bears S. and steer close along by it : keep as much as a cable's length from the shore at Brant point, until the light-house bears S. S. W. to avoid the Brant point, or Light-house shoal. As soon as it bears S. S. W. haul for the point, to avoid the Coetue flats. S. by E. will just lay a good reach across the harbour ; but you must steer S. to avoid the Pest-house shoal ; then you may stand far across the harbour, if the wind be westerly—if easterly, you may keep right for the wharves, as it could not be expected that a stranger could take the advantage of the laps and swashes on the bar ; at middling tides he would have about 3 feet water—at neap tides not more than 7 to $7\frac{1}{2}$ feet—at spring tides 9 to $9\frac{1}{2}$ feet.

When you are about half way from the bar to the light-house, it would be best to steer about S. by E. or S. until the light-house bears S. E. by S. then run for it as above directed, as the straight course above will cross the corner of the Black flat ; yet if the wind be easterly, there will be no danger ; if the wind is westerly, you might get on the flat, as it lies on the east side of the channel, and the Cliff shoal on the west side.

2d. Directions for going into Nantucket Harbour.

OBSERVE the small light-house on the end of Brant point, and for a vessel that draws no more than 9 feet 3 inches, bring it to bear S. E. by S. when at the back of the bar, and run directly for it, which will carry you between the Cliff shoal and Black flats ; continue your course until you just shut in the north shore that is to the westward of the cliff ; then you are within the corner of the Black flats, when you may steer directly for the end of the point, and enter the harbour.

Distance between the Light-house shoal and Flats	- - - - -	60 rods.
— between the Flats and Cliff shoal	- - - - -	70
— between the Cliff and Stub shoal	- - - - -	73
— between the Cliff shoal and Bar	- - - - -	110
Length of Cliff shoal from shore	- - - - -	95

N. B. You will pass 5 buoys going into the harbour.

3d. Directions for sailing into the harbour of Nantucket by the Buoys.

WESTERN CHANNEL. THE first buoy you pass is a white one, which you leave on your starboard hand ; the next a black one, which you leave on your larboard, said buoy bearing S. S. E. $\frac{1}{2}$ E. from the white buoy ; then steer E. by S. leaving the next buoy, which is a black one, on the larboard hand. The next a white one, which leave on the starboard. Then steer S. S. E. leaving a red buoy on the larboard hand ; then run as the shore lies, till you come near up with Brant point, on which a light-house is erected, which keep aboard all the way into the harbour.

EASTERN CHANNEL. The first buoy you pass is a red one, which you leave on your starboard hand ; the next is a black one, which leave on the starboard hand ; then steer E. S. E. till you come near a white buoy which leave on your starboard hand ; steer S. S. E. till you leave a red one on your larboard hand ; then keep Brant point aboard, as before mentioned.

Vessels coming in the Eastern Channel, in the night, must bring the light on Brant point to bear S. E. by S. $\frac{1}{4}$ S. and run directly for it till they get the shore soundings ; then leave Brant point shore aboard all the way into the harbour.

Courses and distances from Nantucket Light-house.

From Light-house	to	Courses.	Leagues.
—	to the Handkerchief	N. by E.	$4\frac{1}{2}$
—	do. to the Snow Drift	N. N. E.	5
—	do. to the Stone House	N. E. by N.	4
—	do. to the Sandy point of Monomoy	N. by E. $\frac{1}{2}$ E.	$5\frac{1}{2}$

	Courses.	Leagues.
From Light-house to the Little Round Shoal - - - - -	N. E.	3 $\frac{1}{2}$
do. to the east end of Pollock Rip - - - - -	N. E.	7
do. to the Great Round Shoal - - - - -	E. N. E.	3 $\frac{1}{2}$
do. to the north end of Great Rip - - - - -	E. by S. $\frac{1}{2}$ S.	5 $\frac{1}{2}$
do. to the South Shoal - - - - -	S. $\frac{1}{2}$ E.	11
do. to Nantucket Harbour - - - - -	S. S. W.	3
do. to Tuckanuck Shoal - - - - -	W.	3
do. to East Chop of Holmes' Hole - - - - -	W. by N.	9
do. to the Horse Shoe - - - - -	N. W. by W.	5 $\frac{1}{2}$
do. to Hyannes - - - - -	N. W. $\frac{1}{2}$ N.	6
do. to Cape Sable - - - - -	E. N. E.	83
do. to the Shoal on George's Bank - - - - -	E. $\frac{1}{2}$ N.	37
the E. end of Nantucket (called Sancoty Head) to the } South Shoal - - - - - }	S. $\frac{1}{4}$ E.	9 $\frac{1}{2}$

Directions for those running for Block Island Channel, to the southward of Martha's Vineyard, Nantucket Island, and such as are bound into the Vineyard Sound, and intend going over the Shoals to the eastward.

IN approaching the south end of Block island from the southward, the water shoals gradually. When the island bears from N. W. to N. by W. the bottom is mud ; this is commonly called Block island channel. This island, if you come from the southward, appears round and high ; and if you approach it from the S. E. it appears like a saddle, being high at both ends, but highest to the southward. Your course from Block island to *Gay head light is E. N. E. and the distance 14 leagues.

If you fall to the southward of Martha's Vineyard, and can see †Noman's-land island, and intend going over the shoal to the eastward, bring Noman's-land island to bear west, and steer east, (making the course good) which will carry you clear from all danger, and bring you up with Sancoty head, but you must not run direct for Sancoty head till it bears N. N. W. If it is night, you may see Nantucket light when Sancoty head bears as above, also bearing N. N. W. There is a shoal bearing S. by E. from Sancoty head, 1 $\frac{1}{2}$ mile distant, which has not above 10 feet water on it at high water, called Pachick, which joins on the Old Man, between which and the shore you may have good anchoring with the wind at N. W. You must keep your course N. N. W. in this channel, till you bring Sancoty head to bear S. W. when you must steer N. E. for the ship channel. You may turn in or out of this harbour, only observing the flood and ebb tides, the former of which sets N. N. W. and the latter S. S. E. In this channel you will have from 4 to 5 fathoms water, and 1 league distant from Pachick reef to the Bass rip.

If you are coming from sea, and make the island of Nantucket to the northward of you, it may be known by 3 wind mills, which stand near each other upon an eminence. You may then steer directly for the land, until you are within half a mile ; and may, if bound to the eastward, run along the shore in 4, 5, and 6 fathoms water, to the S. E. part of the island, where there are shoals and rips, on which you will have only 2 $\frac{1}{2}$ or 3 fathoms water. Continue your course along the shore, until you bring Sancoty head to bear S. W. from you ; then steer N. E. and you will go over the same shoals in the ship channel, as

* Gay head is a kind of peninsula on Martha's Vineyard, between 3 and 4 miles in length and two in breadth, the extremity of which forms the S. W. point of the Vineyard. The light-house is on the highest part of the head, about 60 rods from the water, 240 feet above the surface, and may be seen 7 or 8 leagues distant, when the weather is clear. It is a REVOLVING LIGHT, to prevent its being taken for the light on Cape Poge, which may be seen from the sea over land, and is a fixed light.

† Noman's-land island lies a little S. W. of Martha's Vineyard, and is about 3 miles long, and 2 broad.

you do in steering east from the light-house. Sancoty head is the easternmost head land of Nantucket.

If, in coming from sea, you make the south shoal, which lies in $40^{\circ} 42'$ N. latitude, give it a birth of a mile. If you intend to make Nantucket island, steer N. by W. and when you come near the island, you may proceed along the shore, according to the former directions.

If, when you make the south shoal, you are bound to Boston bay, and choose to go to the eastward of all the shoals and rips, pass a mile or two to the eastward of the south shoal, then steer N. E. by E. until you deepen the water to 45 or 50 fathoms, and then steer N. by W. for the back of Cape Cod, on which is a light-house containing a fixed light, as more fully described in page 140.

If you come from the eastward, and are bound for Long island or New-York, you should be careful not to go to the northward of $40^{\circ} 30'$ N. latitude, until you pass the south shoal of Nantucket, the southernmost part of which lies in lat. $40^{\circ} 44'$. If by stress of weather you should be driven so far to the northward as to be near Nantucket island, you may pass through the channel to the southward of the island; by bringing Cape Poge Light-house to bear N. N. W. and steering right for it will lead you through in from 4 to 5 fathoms, clear of all shoals. Martha's Vineyard island lies in much the same latitude as Nantucket island, and may be known by a small round island, which lies at the southward of Gay head, called Noman's-land island, 8 miles distant. You may sail between this island and Martha's Vineyard; but you must take care to avoid a ledge of rocks, which bears from Gay-head light N. W. by N. $1\frac{1}{4}$ mile distant.

Ships, in passing the shoal ground on George's bank and Nantucket shoals, should take care to go between those shoals and the *Gulf stream. As the southernmost part of the shoal ground on George's bank lies in $41^{\circ} 38'$ N. lat. and the northern limits of the Gulf stream, directly south from this part of the shoal ground, extends to latitude 39 degrees, you should pass the shoal ground between these two latitudes. As the south part of Nantucket shoals lies in lat. $40^{\circ} 42'$ and the Gulf stream, southward from this part, reaches as far to the northward as lat. $38^{\circ} 30'$, you should pass Nantucket shoals between these latitudes. The shoal on George's bank (east end) lies in long. $68^{\circ} 22'$, and the W. end in long. $68^{\circ} 54'$ W. and the south shoal of Nantucket in long. $69^{\circ} 56'$ W.

By observing the foregoing directions, and keeping between the Gulf stream and the shoals, you will shorten your passage to New-York, Delaware, Virginia,

This remarkable phenomenon is a current in the ocean, which runs along the coast at unequal distances from Cape Florida to the isle of Sables and the banks of Newfoundland, where it turns off and runs down through the Western Islands; thence to the coast of Africa, and along that coast in a southern direction, till it arrives at, and supplies the place of those waters carried by the constant trade winds from the coast of Africa towards the west, thus producing a constant circulating current. This stream is about 75 miles from the shores of the southern states, and the distance increases as it proceeds northward. The width of it is about 40 or 50 miles, widening towards the north. Its common rapidity is 3 miles an hour. A southeast wind narrows the stream, renders it more rapid, and drives it nearer the coast. N. W. and W. winds have a contrary effect. The Gulf Stream is supposed to be occasioned by the trade winds, that are constantly driving the water to the westward, which being compressed in the Gulf of Mexico, finds a passage between Florida and the Bahama islands, and runs to the N. E. along the American coast. This hypothesis is confirmed by another fact: It is said that the water in the Gulf of Mexico is many yards higher than on the western side of the continent in the Pacific Ocean. It is highly probable that the sand carried down by great rivers into bays, and the current out of these bays, meeting with the Gulf stream, by their eddies have formed Nantucket shoals, Cape Cod, George's bank, and the Island of Sable, all of which are described.

Skilful navigators, who have acquired a knowledge of the extent to which this stream reaches on the New-England coast, have learnt, in their voyage from Europe to New-England, New-York, or Pennsylvania, to pass the banks of Newfoundland in about 40° or 50° N. latitude, to sail thence in a course between the northern edge of the Gulf stream, and the shoals and banks of Sable island, George's bank, and Nantucket, by which they make safer and quicker voyages to America.

or other western ports; for you will have the advantage of the eddy current, running contrary to the Gulf stream; the latter would retard your progress at the rate of 60 or 70 miles a day. The Nantucket whslemen by their constant practice of whaling on the edge of the Gulf stream all the way from their island to the Bahamas, are well acquainted with its course, velocity, and extent. A stranger may know when he is in the Gulf stream, by the warmth of the water, which is much greater than that on either side of it. If, when you are crossing the Gulf stream, you are bound to the westward, you should get out of it as soon as possible.

* GAY HEAD is the westernmost point of Martha's Vineyard. The land of this head is high and of divers colours, namely, red, yellow, and white in streaks.

In steering from †Block island for Gay head, you must be careful to avoid the Sow and Pigs; they make a ledge of rocks, some of which are above and others under water. These rocks lie $2\frac{1}{2}$ miles S. W. by W. from the westernmost of Elizabeth isles, and N. W. by W. from Gay head $3\frac{1}{2}$ leagues distant. The first of the flood tide sets strong to the northward over the rocks into Buzzard's bay, which is very foul. Within Gay head there is a fair sandy bay, in which is very good anchoring with south and south-easterly winds. Your course along Elizabeth isles is E. N. E. in 15, 14, 12, 8, 15, 16, and 17 fathoms water; give the isles a birth of about three quarters of a mile.

When coming from sea, you may run for Gay-head light, when it bears from N. N. E. to E. S. E. giving it a birth of 2 miles to clear the Devil's bridge, which bears from the light, N. W. by N. $1\frac{1}{4}$ mile distant. As measuring the distance in the night would be uncertain, you must keep your lead going, and if you should have 7 or 8 fathoms when the light bears S. E. by E. or S. E. haul up north till you have 10 or 12 fathoms; then with flood, steer N. E. and with ebb, N. E. by E. 3 leagues; then E. N. E. will be the course of the sound, which will carry you to the northward of the middle ground, when you will see the ‡West Chop of Holmes' hole harbour (which appears like sand banks or cliffs, with trees back of it) which you may run in for, but keep one mile distant from the shore till you open the East Chop one cable's length; and with a flood tide steer direct for it, and with ebb keep it one point open, till you open a wind-mill, on the west side of the harbour about one cable's length; then run up in the middle of the river, till you come to 4 or 3 fathoms, where you may anchor on good ground. The usual mark for anchoring is the West Chop, bearing from N. N. W. to N. W. by N. but if you lie any time here, the best anchoring is well up the harbour, and close to the shore, mooring S. E. and N. W. in 6 or 5 fathoms water. In this harbour, which is about two miles deep, you will lie secure from all winds except a northerly one. You must not keep further than 2 miles from the West Chop, as there is a shoal called the Hedge fence, which lies about $3\frac{1}{2}$ miles northward from Holmes' hole, and extends W. N. W. and E. S. E. 6 miles, is about 1 mile broad, and has from 4 to 6 feet on it at low water: between this shoal and Holmes' hole, there are from 8 to 12 fathoms water. If you make the chop in the night, when it bears S. E. you are clear of the Middle ground. Steer for the east side of it till you strike in 4 or 3 fathoms, on the flat ground near the chop; then steer S. E. by E. observing not to go nearer the land than 3 fathoms. If in running S. E. by E. you fall into 6 or 7 fathoms haul up S. by W. or S. S. W. and run into 4 or 3 fathoms, as before directed.

In coming into the sound in the night, with a strong north-westerly wind, haul to the northward till you have smooth water under the Elizabeth islands, where you may anchor in 14 or 10 fathoms. Should you have the wind to the southward, it will be best to run down through the South channel or Vineyard side. When the light bears S. S. E. your course is N. E. by E. $\frac{1}{4}$ E. or E. N. E. ob-

* When you come by Gay head with a southerly wind, the south channel is best.

† Block island is about 9 miles in length, extending N. by E. and S. by W. and 5 miles in breadth.

‡ A Light will be erected on the West Chop of Holmes' Hole during the summer of 1817.

servings not to come nearer the land than into 7 fathoms water, till you are abreast of Lumbert's cove, in which is good anchoring, with southerly or easterly winds, and may be known by a high sand bank, called Necunkey cliff, on the east side of it, and a ware-house standing by the water, about midway the cove, opposite which you may come to in 5 or 3 fathoms, sandy bottom, where is the best anchoring. The Middle ground lies about 2 miles without the cove, and has 12 feet water on it. If you intend running down for Holmes' hole, your course, when opposite Necunkey point, is E. by N. keeping near the land to clear the Middle ground. You may track the shore by the land in from 7 to 4 fathoms, till you come near the West chop; but come no nearer than 3 fathoms, and you may track the chop around the same as running down to the northward of the Middle ground. There is good anchoring along this shore, in 6 or 4 fathoms, after you are to the eastward of Necunkey point, till you come near the West chop.

Your course from Gay-head light to Tarpaulin cove, is N. E. by N. and the distance 4 leagues. In this harbour you may anchor in from 4 to $2\frac{1}{2}$ fathoms, and lie safe, with the wind from N. E. by E. to south. It will be best to anchor in 3 fathoms, as with that water you will be out of the tide, where the ground is good for holding. The tide flows at change and full days of the moon, at 9 o'clock, but in the channel between Elizabeth island and Martha's Vineyard the flood runs until 11 o'clock. In this channel there is a Middle ground, which is a narrow shoal of sand, the eastern end of which bears N. W. by N. from the West chop. There is not more than 3 or 4 feet water on the eastern end. N. W. from Necunkey cliff is 3 and 4 fathoms across the ground. Opposite Lumbert's cove is 12 feet, and to the westward of that is 3 and 4 fathoms. The shoal lies W. by S. and E. by N. is about 4 leagues in length, and has several swashes on it. When the East chop of Holmes' hole comes open of the West chop, you are to the eastward of the Middle ground.

Your course from Tarpaulin cove, to Holmes' hole is E. $\frac{1}{2}$ N. distance $3\frac{1}{2}$ leagues. In steering this course, you must have regard to the tide, as the ebb may set you too far to the southward, and the flood too far to the northward, and stand in for the harbour, when you have opened the East chop as before directed.

From Holmes' hole to Cape Poge Light-house the course is E. S. E. and the distance about 3 leagues; in the channel, between them there are 12 and 11 fathoms water. In going through this channel, you must be careful to keep your lead going, in order to avoid a dangerous sand which lies on the north side of it, called the Horse shoe, distant from Cape Poge 3 leagues. The channel between this sand and Cape Poge, and also between the former and Tuckanuck shoal, is narrow; in it there are from 12 to $4\frac{1}{2}$ fathoms water. Some part of this channel is dry at low water; in other parts there are narrow channels, through which vessels may pass, the easternmost part of it spreads with divers prongs, like fingers. When Tuckanuck island bears S. S. W. you are to the eastward of the Horse shoe. On the south side of the channel also, there are several spots of land, to avoid which, you must keep your lead going.

There is a harbour between Martha's Vineyard and Cape Poge, in which you may anchor. In proceeding for this harbour, pass within a mile of Cape Poge, and then steer south along the low sandy beach on the west side, in 5 fathoms water, until you come to the southernmost part of it, then sail more easterly about a mile, until you bring the town, which is in a bay to the westward fairly open, and then steer directly S. S. W. into the harbour, until you get within half a mile of the town, where you may anchor in 4 or 3 fathoms water. This harbour is a gut between Martha's Vineyard and Cape Poge, and is formed by a shoal which lies on the N. W. and W. side of the entrance, and the beach to the southward. The tide runs strong in this harbour.

North from Gay-head light, distant 3 leagues, lies Quick's hole. This is the passage for New-Bedford. In running into the hole, you must keep in the middle of the entrance, and nearer the west side after you have entered. On the west side there is good anchoring opposite a sandy cove, in 4 or 3 fathoms

water. About 3 leagues E. N. E. from the mouth of Quick's hole there is an opening, at the east end of the islands, called Wood's hole.

When you leave Holmes' hole, keep the West chop open to the northward of the East chop, until you have passed Squash Meadow shoal, which you leave on your starboard hand, which is $2\frac{1}{2}$ miles from the East chop, when your course will be E. by S. in 10 or 12 fathoms water, which course you must continue till you pass Cape Poge. If it should be tide of flood you must steer E. by S. $\frac{1}{2}$ S. as the tide of flood sets very strong to the northward, between Cape Poge and Tuckanuck island, and the tide of ebb to the southward, so that you must govern your course by the tide. In clear weather you may see Nantucket light-house 18 miles, which you must bring to bear E. by S. $\frac{1}{2}$ S. which course you are to steer till you pass it one league, when you must bring it to bear west and steer east, taking care to make this course good, which will carry you over the shoals in ship channel; the ground is very uneven, and you will have from 4 to 8 fathoms water. When you have passed over the shoals, you will have from 10 to 14 fathoms water, and then, by steering north, you will make Cape Cod light-house, (which contains a fixed light) distant 18 leagues.

To go to the northward of the Round shoal, you must proceed according to the foregoing directions, until you pass the light-house, and bring it to bear S. W. $\frac{1}{2}$ W. then, by making a N. E. $\frac{1}{2}$ E. course good, you will go between the Great and Little round shoals, in $2\frac{1}{2}$, 3, 4, and 5 fathoms water, until you have crossed the Pollock rip, where you will have about 3 or 4 fathoms water. The Little round shoal bears N. W. from the great one, distant about 3 miles. Continue your N. E. $\frac{1}{2}$ E. course, until you deepen your water to 12 or 13 fathoms, and then steer north for Cape Cod light-house.

Off the N. E. part of Nantucket island, there are three rips; the first is called the Bass rip, and is about 3 miles from Sancoty Head; on some parts of this rip there are only 9 feet water; on other parts there are $2\frac{1}{2}$ and 3 fathoms water. Off the S. E. part of Nantucket island lies a shoal called the Old Man, running 5 miles to the westward, in the same direction with the island, which is $1\frac{1}{4}$ mile from the shore, and has only 3 feet water on the western part, between which and the shore is a good channel.

The Great rip is about $4\frac{1}{2}$ leagues from Sancoty head; on this rip, about E. S. E. from Sancoty head, there are 4 feet water, and east from Squam there are 5, but on many other parts of it there are $2\frac{1}{2}$, 3, and 4 fathoms water.

Fishing rip is about $11\frac{1}{2}$ leagues from Sancoty head, and has from 5 to 7 fathoms water on it. Between this and the Great rip, the ground is uneven; there are 12, 22, and 15 fathoms water. These two rips stretch nearly north and south, and are about 12 miles in length.

Martha's Vineyard is situated between $40^{\circ} 17'$ and $41^{\circ} 29'$ N. latitude, and between $70^{\circ} 22'$ and $70^{\circ} 50'$ W. longitude; about 21 miles long and 6 broad, and lies a little to the westward of Nantucket.

Bearings and distances of sundry places from Gay-Head Light-House.

Noman's-land island, S. 8 miles distant.

Old Man, S. by E. This is a ledge of rocks which lie two thirds of the distance from the Vineyard to Noman's-land island, which has a passage on both sides, that is but little used. Those who do go through must keep near Noman's-land island till the light bears N. You will not have more than $3\frac{1}{2}$ fathoms water in this passage.

Sow and Pigs, N. W. by W. $3\frac{1}{2}$ leagues. This is a ledge of rocks which is very dangerous, and bears S. W. by W. from the westernmost of the Elizabeth islands, (called Cutehunk,) distant $2\frac{1}{2}$ miles.

N. E. from the light, $2\frac{1}{2}$ leagues distant, is a spot of shoal ground, with 3 fathoms water on it.

Mananshaw-bite, $3\frac{1}{2}$ miles distant. In this harbour you will have good anchorage in from 8 to 6 fathoms, the light bearing W. by S. or W. $\frac{1}{2}$ S. and lie sheltered with the wind from E. N. E. to W. S. W.

Block island, W. S. W. distant 14 leagues.

Rhode island light-house, W. N. W. distant 12 leagues.

Bearings and Distances from the Light on Cape Poge, and depth of water of several most dangerous shoals in sight of *Cape Poge light-house, and the bearing of the East chop of Holmes' hole.

East Chop	- - -	N. W. by W. $\frac{1}{4}$ W.	from said light	$7\frac{1}{2}$ miles distant.
Squash Meadow Shoal	- - -	N. W. $\frac{1}{4}$ W.	7 feet at low water	$5\frac{1}{2}$ do.
Norton's shoal	- - -	E. 1-3th S.	9	$7\frac{1}{2}$ do.
Moskeckett Long shoal	- - -	E. $\frac{1}{4}$ S.	6	8 do.
Tuckernuck shoal	- - -	E. $\frac{3}{4}$ S.	7	14 do.
South end Horse Shoe	- - -	E. $\frac{1}{2}$ N.	7	$13\frac{1}{2}$ do.
Dry spots Horse shoe	- - -	N. E. $\frac{1}{2}$ N.	dry	10 do.
Swash of Horse shoe	- - -	E. N. E.	12	9 do.
Tuckernuck shoal from } Nantucket Light }		W. by N. }	7	
Horse shoe from do.	- - -	N. W. by W.		
Coast from Nantucket Light, } bound westward }		W. N. W. }		
From Cape Poge to Skiff's island	S. $\frac{1}{4}$ W.	dry	- - -	9
Hawse's shoal, the shoalest part	S. E. $\frac{1}{2}$ E.	6	- - -	$3\frac{1}{2}$

In bad weather, coming from the eastward, and you wish for a harbour, and the wind admitting, you may bring Nantucket light to bear E. S. E. and run W. N. W. making your course good, until Cape Poge light-house bears W. by S. if bound into Edgarton harbour, then steer for the light until you get in 3 fathoms water; then run W. N. W. if it shoalens haul to the northward; if not, keep on until the light bears south, then run W. S. W. you will have 3 and 4 fathoms hard bottom. As soon as you get $5\frac{1}{2}$ or 6 fathoms sucky bottom, then run S. S. W. until the light bears N. E. $\frac{1}{2}$ E. then you may anchor in about 5 or 6 fathoms water with safety, in case your cables and anchors are seaworthy; otherwise, if you wish to go into the harbour, when the light bears N. E. $\frac{1}{2}$ E. you may run S. W. by W. until you get $3\frac{1}{2}$ fathoms hard bottom, then run W. about $\frac{1}{2}$ a mile, and you will be within the flats which you leave to your starboard hand coming in; you will find it smooth, and about 3 and 4 fathoms water, where you may anchor with safety, though your ground tackling is poor.

If you wish to go to Holmes' hole, or through the sound, bring Cape Poge light to bear S. E. by E. $\frac{1}{4}$ E. and run N. W. by W. $\frac{1}{4}$ W. you will run for the East Chop, and leave Squash meadow shoal on your starboard hand; get 3 fathoms water on the Chop, then haul to the N. N. W. until you deepen to 7, 8, or 9 fathoms; then run S. W. by W. for Holmes' Hole roadstead, in 4 fathoms or $3\frac{1}{2}$ or N. W. for the sound, to clear the West Chop and middle ground.

Description of George's Bank and Nantucket Shoals.

THE shoals of George's Bank lie in lat. $41^{\circ} 35'$ N. and are very dangerous: in some places having only 2 or 3 feet water on them, surrounded 2 or 3 leagues by rips and breakers, which are very dangerous, irregular, and a rapid tide, which sets southward most part of the time.

On that part of George's Bank where the shoals lie, you will have a strong tide, but not regular. The most powerful and rapid parts of it run southward; first to the S. S. E. and continuing its course until it comes up S. W. when it slacks and alters its course, making some short returns to the N. N. E.—N. E. and E. sometimes for the space of 12 and 15 hours.

In coming from the southward for George's Bank, you will get soundings in lat. $40^{\circ} 17'$, if on the S. S. W. part of the bank. Should you get soundings in

* Cape Poge Light-House contains a FIXED LIGHT.

the latitude of $40^{\circ} 30'$, you may be certain you are to the eastward of the shoal, when you must direct your course accordingly to clear it, when your first soundings will be in from 75 to 60 fathoms. When steering to the northward, you will shoalen your water gradually to 24 fathoms, when you will be in lat. $41^{\circ} 20'$, which depth of water you will have 10 or 12 leagues distant, either east or west. From 40 to 21 fathoms soundings you will have fine white sand, mixed with black specks; but the nearer the shoal, the coarser the sand. When you get into 15 fathoms, you will have very irregular soundings, sometimes deepening, and at others shoaling 2 or 3 fathoms. If you are coming into the east channel, and get lat. in $42^{\circ} 12'$, you will then be on the N. E. part of the bank, as there are no soundings on George's Bank to the northward of the above latitude. When the shoal of George's bears S. W. by W. 8 leagues distant, you will have from 20 to 22 fathoms, round stones as big as eggs, and large muscles; 4 leagues to the eastward of this you will have 30 fathoms white moss; and 3 leagues further east you will have black moss; and from that to the N. E. part of the bank, rocky bottom and plenty of halibut.

If you strike soundings in latitude $42^{\circ} 30'$, it must be on the S. W. part of Brown's bank, where you will have from 30 to 45 fathoms, sandy bottom.

On your first entrance on George's bank, from Block island channel, you will have oozy bottom, till you are as far to the eastward as the bank extends.

On the S. W. part of George's bank, you will have from 40 to 35 fathoms, sand and ooze. From lat. $40^{\circ} 30'$, to lat. 41° , long. $67^{\circ} 30'$, you will have from 40 to 30 fathoms, sometimes fine black and white sand, and at others coarse yellow sand, the shoal bearing N. W. by N. 10 leagues distant.

Soundings from the westward of George's bank continues its course W. by S. until you are nearly abreast of Long Island, then southward to Cape Hatteras.

Eight or 10 leagues S. E. from the south part of George's bank lies the Gulf Stream, where there is a strong E. N. E. current, and if you are bound to the westward, you had better go very near the bank, and often on soundings, till you are abreast of the south shoal of Nantucket, where you have 30 leagues from bank to current, and by doing which you will probably shorten your passage.

The south shoal of Nantucket is almost dry; the tide runs swift, but regular to the N. E. and S. W. Nearly to the southward of this shoal, in 25 or 30 fathoms, you will have fine black and white sand; to the eastward, in the same soundings you will have coarse sand. When you are near the shoal, you will have very light coloured water, together with white and black sand and pieces of green shells. Nine or ten leagues to the westward of the above shoal, in 30 or 40 fathoms, you will have black mud of a shining smooth nature, when you will be in Tuckernuck channel.

To the westward of the south shoal of Nantucket, you have no shoals, rips, nor tide to hurt you, until you come near the land, but clear sea, good navigation, and regular soundings. To the eastward and northward of the south shoal you will have a rapid tide.

Around the coast of Nantucket and the shoals, you will have sandy bottom, and in moderate weather, had better anchor than be driven about by the tide, which is very rapid. The course of the tides at and over Nantucket shoals, is nearly N. E. and S. W. and regular. The N. E. tide makes flood. S. S. E. moon makes high water. South moon makes full sea at Nantucket harbour.

S. S. E. and W. N. W. moon makes high water on the shoals; the tide of flood sets N. E. by E. and ebb S. W. by W. from 2 to 3 knots an hour. It ebbs and flows about 5 or 6 feet.

When you come in from sea and fall into Block island channel, you will have from 54 to 70 fathoms soft muddy bottom. You will have soundings in the lat. of 40° N. In standing to the northward you will shoal your water to 30 fathoms, and when in sight of Block island, you will have from 25 to 20 fathoms, sandy bottom. When Block island bears N. distant 4 or 5 leagues, you cannot see any land to the northward or eastward; but as you approach the island you will see Montuck point to the westward, making a long low point to the eastward. In sailing W. S. W. you will make no remarkable land on Long

Island, from the eastward of said island to the westward, its broken land appearing at a distance like islands. You will have 20 or 22 fathoms water out sight of the land, sandy bottom in some and clay in other places. When you come in sight of Sandy hook light-house, you will see the Highlands of Neversink, which lie W. S. W. from Sandy hook, and is the most remarkable land on that shore.

At the south entrance of the south channel you will have oozy bottom in 40 or 50 fathoms water; south of Noman's-land island in 20 or 25 fathoms, you will have coarse sand like gravel stones; and S. S. W. from it in 28 or 30 fathoms, coarse red sand; S. S. E. from Block island, which is in Block island channel, in 40 or 50 fathoms, you will have oozy bottom, but as you shoal your water to 25 or 20 fathoms, you will have coarse sandy bottom.

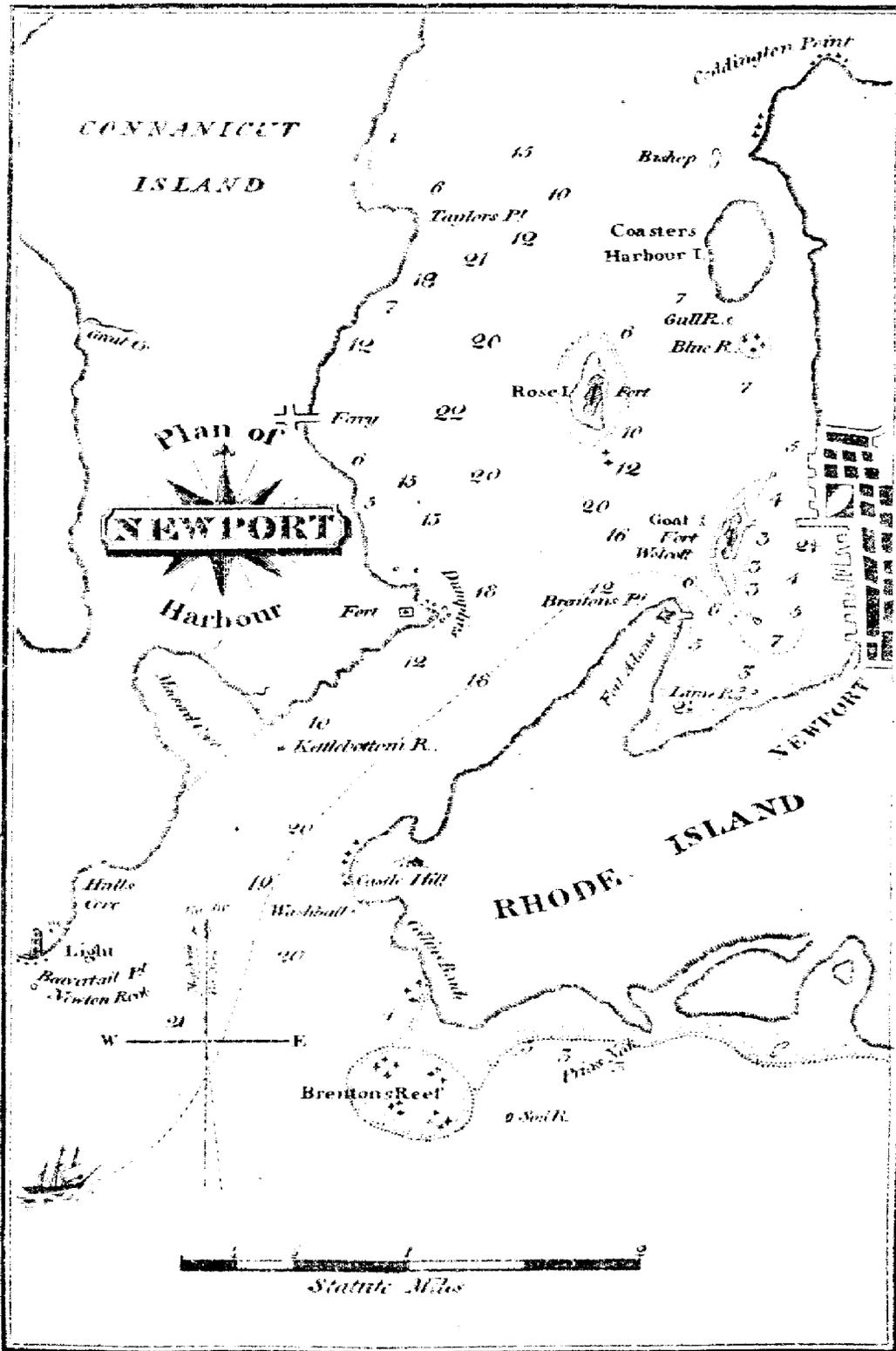
Directions from Gay-Head to New-Bedford.

BRING Gay-head light-house, (which contains a Revolving Light to distinguish it from Cape Poge Light, which can be seen from sea over the land,) to bear S. and steer N. till you come to the passage through the islands called Quick's hole, which you must be careful in entering, as a spit runs off from the larboard hand. Enter as near the middle of the passage as possible, but if you do deviate keep the starboard hand best on board, when you will have from 5 to 8 fathoms; then steer N. $\frac{1}{2}$ E. till you bring the light-house on *Clark's point to bear N. N. W. when you must run direct for it till within half a mile of the light; then N. by W. from you will appear a small island just above water, which you leave on your starboard hand, keeping nearer the island than the main land. Keeping on this course you will see a bluff point called Fort point, and an island opposite, called Parmer's island, which you must go between: The passage is narrow, and a flat extends from the starboard hand, but you may safely keep in the middle of the passage, or larboard hand best aboard. After passing the before-mentioned island 1 cable's length, the town will appear open on your larboard hand, when you may run for the end of the north wharf.

Directions for those who fall in with Block island, when they are bound for Rhode-Island Harbour.

From the S. E. part of Block-island to Rhode-Island light-house the course is N. by E. $\frac{3}{4}$ E. and the distance 8 leagues; about midway between them, there are 24 fathoms water. If you are on the west side of Block-island, with the body of the island bearing E. N. E. in 8 or 10 fathoms water, your course to Point Judith Light is N. E. by E. about 6 leagues. This point appears like a nag's head, and is pretty bold; between Block-island and the point there are from 30 to 6 fathoms water, except a small shoal ground, which in thick weather is often a good departure, say 4 to 5 fathoms. From Point Judith, (when not more than a quarter of a mile from the point) to Rhode-Island harbour, your course is N. E. and the distance is about 5 leagues. When in 13 fathoms water, Point Judith Light bearing W. or W. by N. the course to Rhode-Island

* Clark's Point forms the west side of New-Bedford harbour.
 † The Light-house on Point Judith is a stone edifice, 40 feet high. The lamps are 60 feet above level of the sea, and one. The distance from the Light-House to high water mark, is as follows: East from the Light-House to high water mark, 16 rods; S. E. 14 rods; S. 13 rods; S. S. W. 23 rods, which is the extreme part of the point, to which a good birth should be given. The Light on Point Judith bears S. W. $\frac{1}{4}$ S. 3 leagues distant, from New-port, (Rhode-Island,) Light-House.



harbour is N. E. by N. $\frac{1}{2}$ N. and the distance to the light-house 3 leagues. The light-house, together with the Dumplins, must be left on your larboard hand; it stands on the south part of *Conannicut island; this point is called the Beaver's tail, and is about 3 leagues distant from Point Judith. After leaving the light-house on your larboard side, there is a sunken rock due South from the light-house, about 200 yards distant, called Newton rock. You must take care to avoid the rocks which lie off south from Castle hill, some of which are above water. Castle hill is on the east side of Rhode-Island harbour. If you steer N. E. from the light-house, 3 miles distance, you will have good anchoring without Goat island (off the N. E. point of which is a buoy in 16 feet water;) the shore is hard and rocky. A little within the light-house, and near to the shore on the west side there is a cove called Mackerel cove, the entrance to which is shoal and dangerous. About 5 miles within the light-house there is an island called Goat island, on which the fort stands, it lies before the town, and stretches about N. E. and S. W. After you pass the light-house, bring it to bear S. W. by W. and steer N. E. by E. 3 miles, which will carry you between Brenton's point and the south Dumplin, back of Goat island, in good anchorage and is the only course which will carry you clear. As both ends of these islands are pretty bold, you may pass into the anchoring at either end, and ride nearer to Goat island side than to that of Rhode-island, as the other parts of the harbour are grassy, and would be apt to choak your anchors. Rhode island is navigable all round, by keeping in the middle of the channel.

Narraganset bay lies between Conannicut island and the main. Your course in, is about north, taking care to avoid the whale rock: you may pass in on either side, and anchor where you please. From the light-house on Conannicut island to Gay-head, in Martha's Vineyard island, the course is E. S. E. and the distance 12 leagues. In little wind you must take care that the flood tide does not carry you into Buzzard's bay, or on the Sow and Pigs.

Providence is situated about 30 miles N. by W. $\frac{1}{2}$ W. from Newport, and 35 miles from the sea, being the head navigation of Narraganset bay. Ships that draw from 15 to 18 feet water, may sail up and down the channel, which is marked out by stakes, erected at points of shoals and beds lying in the river.

[**See the Plate.]

The following are the bearings, by Compass, from Rhode-island light-house, of several remarkable places, together with the distances, viz.

Block island, (S. E. point) S. W. by S. $\frac{1}{2}$ S.
 Point Judith Light, S. W. $\frac{1}{4}$ S. distant 3 leagues.
 Block island, (S. E. point) S. W. $\frac{1}{4}$ S. or S. W. by S. nearly.
 Block island, (middle) S. W. $\frac{1}{2}$ S. distant 8 leagues.
 ————— (S. E. end) S. W. by S. $\frac{1}{2}$ S.
 Whale Rock, W. $\frac{1}{4}$ S.
 Brenton's Reef, E. S. E. $\frac{1}{4}$ E.
 South point of Rhode Island, E. $\frac{1}{4}$ S.
 Highest part of Castle Hill, E. N. E. $\frac{1}{4}$ E.
 Brenton's Point, N. E. by E.
 Fort on Goat Island, E. N. E. $\frac{1}{2}$ N.
 South easternmost Dumplin, N. E. $\frac{1}{4}$ E.
 Kettle Bottom, N. E.
 Newton's Rock, S. 200 yards.

N. B. The anchoring place between the town of Rhode-Island and Coster's harbour, N. E. by E.

* Conannicut island lies about 3 miles west of Newport, the south end of which (called the Beaver's tail, on which the light-house stands) extends about as far south as the South end of Rhode-Island. The east shore forms the west part of Newport harbour. The ground the light-house stands upon is about 12 feet above the surface of the sea at high water. From the ground to the top of the cornice is 50 feet, round which is a gallery, and within that stands the lantern, which is about 11 feet high, and 8 feet in diameter. It contains a fixed light.

Directions for sailing from Newport, through the Sound, to Hunt's Harbour, near Hell-Gate.

THE first course from Newport light-house is S. W. by S. distant 3 leagues, to Point Judith Light: thence from Point Judith Light, through the Race to the first Gull island, the course is W. by S. 16 leagues distance, (leaving Fisher's island on your starboard hand, and the Little Gull Light on your larboard hand, which bear from each other N. $\frac{3}{4}$ E. and S. $\frac{3}{4}$ W. distance $9\frac{3}{4}$ miles,) or you may continue your W. by S. course till the Little Gull Light bears W. $\frac{1}{4}$ N. 3 miles distant, and then run N. W. $2\frac{1}{2}$ miles, when, with New-London Light bearing N. distant $2\frac{1}{2}$ leagues, you steer W. 10 leagues, which will bring you within 2 leagues of *Faulkland Island Light, bearing about W. by N. $\frac{1}{4}$ N. from you, when you must steer W. S. W. 12 leagues, which will carry you within $5\frac{1}{2}$ leagues of Eaton's Neck Light-house, bearing from you W. $\frac{3}{4}$ S. when you must steer W. 9 leagues, then W. S. W. 4 leagues, after which S. W. $4\frac{1}{2}$ miles, which will carry you up with Sands' Point Light-house on your larboard hand, and the Execution Rocks on your starboard hand, which have a spear on them. In case of a flood tide and a southerly wind, when you come through the Race, your course should be W. until you come up with Eaton's neck, taking care to make proper allowance for the tide. If you are bound into New-London, after getting to the northward of the S. W. part of Fisher's island, keep New-London light bearing from N. N. W. to N. N. E. if you are beating to windward, but if the wind is fair, bring the light to bear N. when at the distance of 2 leagues, and run directly for it; leave it on your larboard hand in running in; when in, you may have good anchoring in 4 or 5 fathoms water, clayey bottom. In coming out of New-London, when you have left the harbour, bring the light to bear N. N. E. and steer directly S. S. W. till you come into 15 fathoms water, in order to clear a reef that lies on your starboard hand, when the N. part of Fisher's island will bear E. distant 2 leagues. If a ship could have a fair departure from the middle of the Race, and was compelled to run in a dark night, or thick weather, the best course would be west to Stratford point, and would afford the largest run of any one course. If bound up sound, steer W. by S. 33 leagues, which will carry you up with Eaton's neck, (on which is a †Light-house.) On this course you will leave Faulkland islands on your starboard hand; you may get as near Long-island shore as 2 or 3 miles, without any danger; but if you happen to get on the N. shore, take particular care to keep at the distance of 3 leagues, in order to avoid the reefs and shoals that lie along the shore.

About 7 leagues E. N. E. of Eaton's neck light-house lies a ‡shoal or middle ground, called Stratford shoal, on which there are but 2 feet of water, at low water. You may steer on either side of the shoal you please; on the N. are from 3 to 7 fathoms; on the S. side from 12 to 17 fathoms water.

From Eaton's neck to Lloyd's neck the course is W. $\frac{1}{2}$ N. 5 miles. Between Eaton's neck and Lloyd's neck lies a deep bay, called Huntington's bay, where a ship of any size may anchor with safety, keeping the eastern shore aboard. From Lloyd's neck to Matinecock point the course is W. by S. distant 10 miles, good soundings, borrowing on Long-island to 7 fathoms. The course from Matinecock point to Sands' point light is W. S. W. distant 2 leagues; between these

* There are two of these islands, on the largest of which a light-house has been erected—S. E. from the light, 4 miles distant, you will have 3 and 4 fathoms, and on the S. and E. sides it is very bold. The Light-house contains a fixed light.

† The light-house stands on an eminence, about 73 feet high; the height of the walls is 50 feet more. The whole height from high water mark to the light is 126 feet. It stands about 300 feet from high water mark, is a single fixed light, and is painted black and white in stripes, from the top to the bottom.

‡ Bearings of the Shoal—Stratford point N. N. W.—Mount Misery S. $\frac{1}{2}$ W.—Grover's hill (near Black rock harbour) N. W. The length of the shoal 1 league, running N. by E. and S. by W. Light-house on Eaton's neck W. by S. $\frac{1}{2}$ S. The shallowest part is near the middle of the shoal, from whence the observations were taken, where there are 3 feet water in common tides. The centre of the shoal is near the middle of the sound, perhaps half a league nearest Long-island shore.

2 points is a bay, called Hamstead's bay, in which is excellent anchoring, keeping the eastern shore aboard. To the northward of Sands' point Light, distant one quarter of a league, lie the Execution rocks, which have a spear on them, with a board pointing to the S. W. which you must take care to avoid, leaving them on your starboard hand. From Sands' point Light the course is S. W. 4 miles to Hart island, to the west of which, between that and City island, there is good anchorage for vessels of any size. If a vessel in making this course good is obliged to turn to windward, they must be very careful of a rock called the Success, which bears W. N. W. from the east bluff of Cow bay, half a mile distant. The course from thence to Frog's point is S. S. W. distant 2 leagues, taking care to avoid the Stepping Stones, one of which has a spear on it, which lie on your larboard hand, and are steep too. The soundings on your starboard hand are regular to 3 fathoms. From Frog's point to Hunt's harbour the course is W. keeing as near the middle of the sound as you can conveniently. [* * See the Chart of Long-Island, on a large scale, published at the Quadrant, corner Fulton and Water-Streets, New-York, where every Pilot, Chart, Nautical Instrument, and Book, may be procured from the publisher of the Practical Navigator, American Coast Pilot, Seamanship in Theory and Practice, Nautical Almanac, &c. &c. and where all Nautical Instruments are repaired. — Dec. 1816.]

Directions from Block-Island to Gardner's Bay.

MONTAGUE POINT, the easternmost part of *Long Island, which has a light-house on it, is 7 leagues W. by S. from the S. W. point of Block Island; between the island and the point there are 16 and 13 fathoms water. As you approach the point you will quickly come into 3, 7, and 5 fathoms water. A flat runs off from the above point, on the outer part of which there are 5 fathoms water, rocky bottom.

From Block island a reef of rocks lies 1 mile distant from the N. end of the island.

South-west ledge lies W. S. W. from Block island, 5 miles distant, having $4\frac{1}{2}$ fathoms at low water, and breaks in a heavy sea. As you open the passage between Montague and Block island, you will deepen your water and have soft bottom on an E. N. E. course, and when abreast of Block island, you will shoalen your water to sandy bottom; when past it you will again deepen to soft bottom.

In the offing between Montague and Block island, it is high water at half past 10, full and change, but on the shore two hours sooner.

The N. E. part of Gardner's island is $5\frac{1}{2}$ leagues W. N. W. from Montague point; with westerly winds you may anchor off this part of the island, which is sandy; the marks for anchoring are the high lands of Plumb island N. W. and the S. part of Gardner's island in sight, bearing S. by W. or S.; you will have 12 or 10 fathoms water; the bottom is sand and mud. About 4 miles within Montague point, one and a half mile from the shore, lies a reef bearing N. W. $\frac{1}{2}$ N. from the point, on which there are 6 feet water, which is very dangerous.

The entrance of Gardner's bay is formed by the north end of Gardner's island, and the south end of Plumb island. If you are bound through the Sound toward New-York, your passage from Gardner's bay is between the west end of Plumb island and Oyster pond, through which channel you will have from 4 to 20 fathoms water. When going into the bay you may go within a cable's length of Gardner's island, where you will have 10 fathoms water. You should be careful not to go too nigh Gull rock, as there is a rocky spot $1\frac{1}{2}$ mile from it, on which there are about 3 fathoms at low water. This shoal lies with the following marks and bearings, namely: a house on Plumb island, (standing about

* The light-house on Montague point is on the east end of Long island, bearing W. by S. from the S. W. point of Block island, 7 leagues distant. From Montague light-house to the west point of Fisher's island, N. N. W. 8 leagues distant. The light-house contains a fixed light.

one third of the way between the middle and the N. E. end,) on with the northernmost of the two trees which appear beyond the house; the N. end of Bull island to bear N. N. W. or N. by W. $\frac{1}{2}$ W.; and the southernmost end of Plumb island on with the northernmost point of Long island. In order to avoid this rock, when going into or coming out of Gardner's bay, you must be sure to keep the S. point of Plumb island open of the N. W. point of Long island, whilst the house on Plumb island is on with the northernmost of the two trees, as before mentioned. There are several trees, but they appear, when viewed at a distance, to be only two trees. This shoal is called by some the Bedford rock, because the English ship Bedford grounded on it, Aug. 15, 1780. E. by N. 1 league from Plumb island, lies a dangerous reef, which extends to the Bull islands, and the passage between is not fit to be attempted, as there are several rocks, some of which may be seen. In Gardner's bay you may anchor in what depth of water you please, from 5 to 8 fathoms.

On the S. W. side of Gardner's island there is very good riding. If you are to the eastward of this island, with an easterly wind, and wish to take shelter under the S. W. side, you must give the N. W. end of the island a large birth, as above directed, and as you open the W. side of the island, you may haul round the N. W. point, and anchor where you please. The soundings are regular.

Montague False point is about 3 miles N. W. from the true point. On the Six feet rocky shoal there are the following bearings, namely: The Long white cliffs on the west end of Fisher's island N. by W. $\frac{3}{4}$ W.; the Bull islands W. N. W.; the N. E. bluff of Gardner's island W. S. W. $\frac{1}{2}$ W.; a grove of trees which stands on the west side of Fort pond bay, and rises like a cock's comb, touching or rather to the eastward of Willis' point, and bearing S. by W. $\frac{1}{2}$ W. Willis' point is on the E. side of the entrance of Fort pond bay. This bay is very convenient for wooding and watering; the ground is clear and good, and you may anchor in any depth you please. In a large ship you may bring Willis' point to bear N. E. and even N. E. by N. and then have in the middle about 7 fathoms water. Near the shore, at the bottom of the bay, there is a pond of fresh water.

From the W. point of Fisher's island, a dangerous reef runs off about one mile W. S. W. which in passing it you must be careful to avoid. In this passage, which is called the Horse Race, the tide runs very strong; it flows on the change and full days of the moon, half past 11 o'clock, and the water rises 5 or 6 feet.

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Bearings and Distances of sundry places, from the Light-house on Montague Point, taken by the Officers of the Revenue Cutter Argus.

The S. part of Block island bears E. by N. from the light-house on Montague point, 20 miles distant.

The eastern rips lie E. by N. $1\frac{1}{4}$ mile from the light-house. The northern rips lie N. E. $\frac{1}{2}$ E. 3 miles from the light-house. [These rips, although they may appear to the mariner dangerous, may be crossed with any draft, in 6, 7, 8 and 9 fathoms.]

Shagesagonuck reef, on which a spear is placed, bears N. W. $\frac{1}{2}$ N. from the light house on Montague point, 4 miles distant; the reef ranges N. by E. and S. by W. about one quarter of a mile in length. There is a good channel way between the reef and Long island, about two miles wide, in 3, 4, and 5 fathoms water.

Frisbe's ledge is only a place of hard rocky bottom before you approach the light-house to the westward, from 8 to 15 fathoms, and nowise dangerous to any vessel. You may keep the shore on board from the high-lands (say $\frac{1}{2}$ of a mile,) and haul round Montague.

The east end of Fisher's island bears N. by W. from the light-house on Montague, 20 miles.

Watch hill point light house, (which contains a repeating light,) bears N. from Montague point light-house, distant 20 miles; there is a reef extending from Fisher's island to Watch hill point, leaving a passage between the E. end of the reef and Watch point, half a mile.

The Race rock, where there is an iron spear placed, bearing S. W. by W. three quarters of a mile from the W. point of Fisher's island, bears from Montague light-house N. W. 20 miles distant.

The Gull islands bear W. S. W. from the Race rock, 6 miles distant. The light-house standing on the west chop of New-London harbour bears N. N. W. 9 miles from the spear on the Race rock. On the Little Gull island there is a light-house, containing a fixed light bearing W. S. W. from the west point of Fisher's island, 6 miles distant.

Bartlet's reef, on which a buoy is placed, bears N. W. by W. $\frac{1}{2}$ W. 8 miles distance from the Race rocks.

Little Goshen reef, where a buoy is placed, bears N. E. by E. about 3 miles distant from the buoy on Bartlet's reef.

The light-house at New-London harbour bears from the buoy on Little Goshen reef N. E. $\frac{1}{2}$ E. about 2 miles distant, and contains a fixed light.

The S. W. ledge, where a buoy is placed, bears N. by W. from the Race rock, $7\frac{1}{2}$ miles distant.

The E. chop of New-London harbour bears N. by E. $\frac{1}{2}$ E. from the S. W. ledge, $1\frac{1}{2}$ mile distant.

The light-house bears from the buoy on S. W. ledge N. W. by N. $1\frac{1}{2}$ mile distant.

*Description of *Long-Island.*

LONG-ISLAND, from Montague point to Red hook, extends W. by S. about 108 miles, and is at the broadest part about 25 miles across. The land is generally pretty low and level, excepting a few hills, which lie about 40 miles to the westward of Montague point. Along the S. side of the island a flat extends about a mile from the shore; in some places it runs out a mile and a half. Your course along this flat from Montague point to Sandy hook is S. W. by W. $\frac{3}{4}$ W. 14 leagues; and then W. by S. 22 leagues. The E. end of the flat is sand, the middle and west parts are sand and stones. About 4 leagues distant from the island there are from 15 to 18 fathoms water, and from that distance to 20 leagues, the water deepens to 30 fathoms; in the latter depth you will have oozy ground, and sand with blue specks on it. About 4 leagues off the E. end of the island, you will have coarse sand and shells; and at the same distance from the middle and west end, there is small white sand.—From the S. W. end a shoal extends about 6 miles toward Sandy-hook.

Directions from Gardner's Island to Shelter Island.

IF you fall in with Gardner's island, you must sail on the N. side of it till you come up with a low sandy point at the W. end, which point puts off 2 miles from the high land. You may bring the island to bear east, and anchor in 7 or 8 fathoms water, as soon as within the low sandy point.

Directions from Gardner's Island to New-London.

YOUR course from Gardner's island to New-London is N. by E. 5 or 6 leagues. In steering this course, you will leave Plumb island and Gull islands on your larboard, and Fisher's island on your starboard hand. In this pass you will go through the Horse race, where you will have a strong tide. The flood sets W. N. W. and the ebb E. S. E. This place breaks when there is any wind, especially when it blows against the tide. Your soundings will sometimes be 5 fathoms, at others 15 and 20. In passing the west end of Fisher's island, you must give it a birth of $3\frac{1}{2}$ miles, as there are several rocks to the westward of it; then your course to the light-house is N. N. W. distant 2 leagues; but in going in here you must not make long hitches; you will leave a sunken ledge on your larboard, and one on your starboard hand. When within one mile of the light-house, you may stand on to the eastward till the light bears N. N. W. and then run up about N. N. E.

Directions for vessels coming from sea, and bound to New-London.

KEEP Gull island light to bear W. N. W. until you judge yourself within

* Long island sound is a kind of inland sea, from 3 to 25 miles broad, and about 140 miles long, extending the whole length of the island, and dividing it from Connecticut. It communicates with the ocean at both ends of Long island, and affords a safe and convenient inland navigation.

† The light-house stands on the west side of the harbour, and projects considerably into the sound. It contains a fixed Light.

about 2 miles of the light, your course then to New-London light (after you pass Race rock, which lies W. S. W. from the point of Fisher's island, distance $\frac{3}{4}$ of a mile) is N. N. W. In coming in or going out of New-London (when opposite the Gull light) bring the Gull light to bear S. S. W. and New-London light N. N. E. leave the light on your larboard hand in going into the harbour; keep well to the W. if it be winter season, and the wind at N. E. and stormy; your course to break off a N. E. gale, in good anchorage is W. N. W. from the Gull, distance 5 miles, then haul up, if the wind be N. E. and steer N. W. until you get into 10 fathoms of water, muddy bottom. Anchor as soon as possible; you will be between Hatchet's reef and Black point; this is the best place you can ride in, if you have a N. E. gale, and thick weather, and cannot get into New-London. Saybrook light will then bear W. by N. or W. N. W. It is a fixed light at Saybrook harbour.

What makes me give these directions is because Saybrook is no harbour for vessels either day or night, without it be those who are well acquainted; it will be well to give Saybrook light a birth of 3 or 4 miles, and steer W. by S. 22 miles. You will make Faulkland island light, which give a south birth of 2 miles (leave it on the starboard hand;) your Sound course then is W. by S. 45 miles distant, which will carry you up to Eaton's neck, to the south Stratford shoal. This shoal bears N. N. W. from Sataket (Long-Island) and S. S. W. from Stratford point. In leaving Faulkland island light 3 miles, steer W. until you get into 5 or 7 fathoms water, distance 25 miles to Stratford point, hard bottom, then your course is W. S. W. to Tina Cock point.

From Faulkland island bound into New-Haven, give the island light a birth of 10 or 12 miles, then haul up N. W. give New-Haven light a birth of two miles, on account of a ledge bearing S. W. from the E. point of New-Haven; bring New-Haven light to bear N. E. by E. If beating in your soundings will be from 2 to 3 and 4 fathoms. Stand in no farther than 2 fathoms upon the W. shore; it will be hard bottom, and if you stand on upon the E. shore, you will have 3, 4, and 5 fathoms water, muddy bottom, channel way—bring the light to bear S. E. and anchor in muddy bottom, in 2 fathoms water near the E. shore, called Morris' cove; your course then up New-Haven harbour with a fair wind, is N. After you get into muddy bottom, it is best to keep the lead a going often on account of bordering upon the W. shore, where you will have hard bottom and soon aground; be sure to keep in muddy bottom. Your course N. will carry you up to the Pier—give the Fort rock a small birth. ***NOTE—E. S. E. from Faulkland island is a hard ridge on which the tide rips and you have bold water all round it. The light at New-Haven is a fixed light.

Directions for sailing by the Light-House on Fayerweather's Island, at the entrance of Black Rock Harbour, on the north shore of Long Island Sound.

THE harbour of Black Rock, although safe and easy of access, yet is so situated that no direct course can be given to steer for the light, that will carry you direct into the harbour, as that depends wholly on the distance you are from the light at the time you make for it; therefore judgment is to be used in varying the bearing of the light as you draw near in, which is easily done by observing the following rules. In coming from the westward, if you mean to harbour, to avoid the reef called the Cows, you may bring the light to bear N. and run directly for it until within three quarters or half a mile distance, when if occasion requires, you may stretch into the westward in a fine beating channel, having from 5 to 3 fathoms water, and good ground. As you approach the light, which stands on the E. side of the harbour, the water grows gradually shoaler to about two fathoms. The mouth of the harbour, although not very wide, yet is not difficult; the light bearing E. of you brings you completely into the harbour. The island on which the light stands, and the reef called the Cows on the south

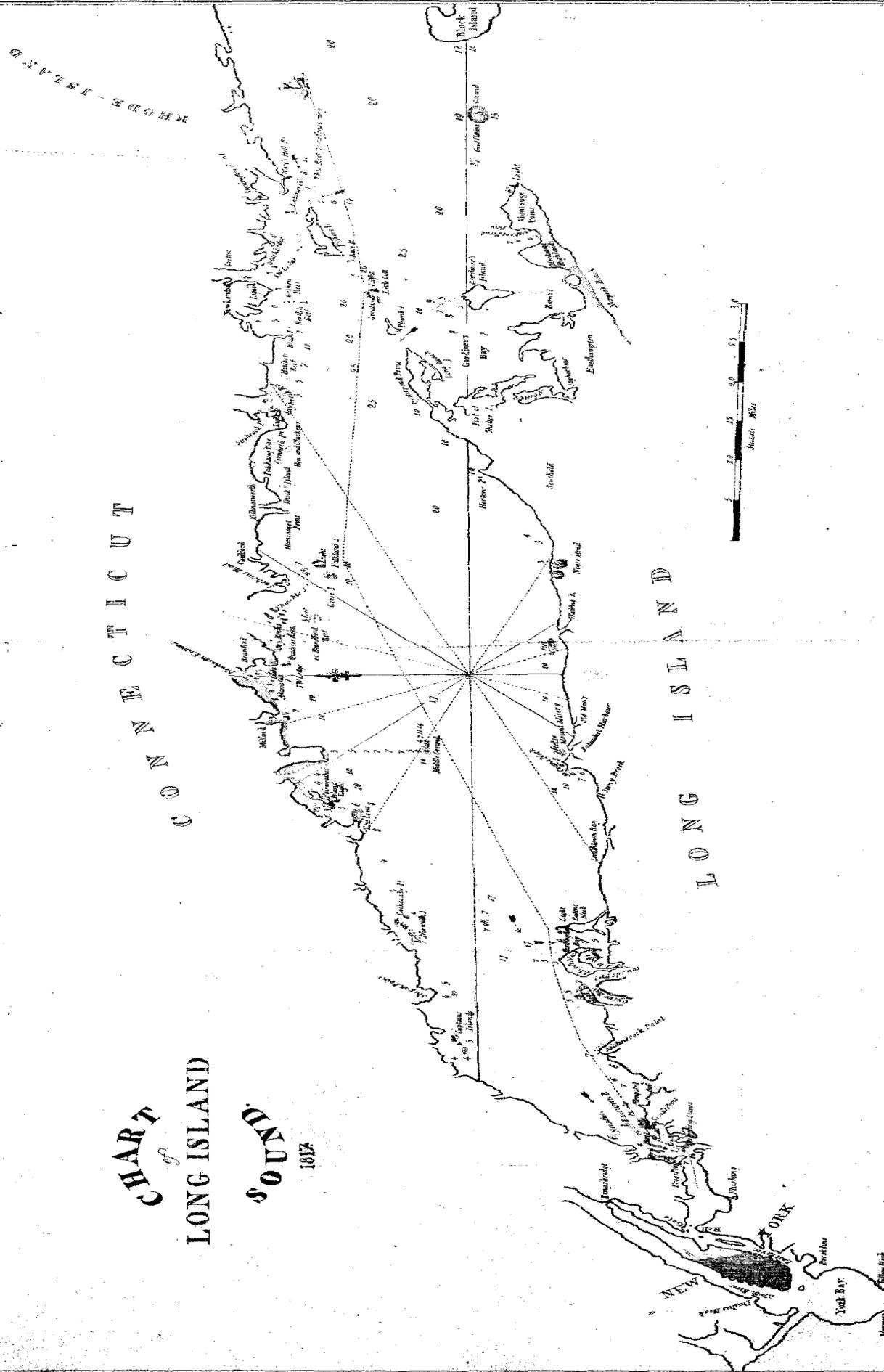


CHART
of
LONG ISLAND SOUND
1817A

and west side from the harbour of Black rock. On the easternmost rock of this reef stands a spiral light distant from the light half a league, and from which the light bears N. $\frac{1}{2}$ E. The light stands 44 rods from the south point of said island, at low water. From this point puts off a single rock, 30 rods distant, on which is 8 feet at high water, making in all about 74 rods distance. The light bears from this rock, N. by E. $\frac{1}{2}$ E. As soon as you pass this point or rock, the harbour is fairly opened to the northward, in any point from N. to W. N. W. You can run for the light with safety, observing, as you draw nearly in, the above directions, and a due attention to the lead. The bottom for some distance from this rock southerly, is hard, but you may continue your course, and it will soon deepen. It is safe and good anchorage to the eastward of the light, for all winds from W. S. W. to N. N. E. quite down to the mouth of Bridgeport harbour, which is distant about two miles. The shore on the eastern side of the light is bold too, in 3 fathoms close aboard the light, and so continues until you are quite down to the south point of the island. This bay to the leeward of the light, between that and Bridgeport, is one of the best bays for anchorage on the north shore in Long-Island Sound, and affords from 4 to 3 fathoms water, the light then bearing west. In coming from the eastward, crossing Stratford Shoal close aboard, your course to Black Rock Light is W. by S. and you keep soundings on the starboard hand, not less than 6 fathoms nor more than 8. Black Rock Light-House contains a fixed light.

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Directions for sailing through the Sound from New-London to New-York.

GOING out of New-London, bring the light to bear N. N. E. and steer S. S. W. upon the ebb or flood; this course made good will carry you clear of Goshan and Bartlett's reefs. When going out of the harbour of New-London, if it be day, keep your course S. S. W. until you open the south Hummock, by the E. end of Fisher's island, and if it be night your course is the same until you get into 15 fathoms water; your course is then W. by S. (Sound course made good) to Eaton's neck light. From Eaton's neck to Lloyd's neck is W. $\frac{1}{2}$ N. To Matinecock point is W. S. W. From Sand's point Light to Hart island is S. W. From Matinecock point to Sand's point light is W. S. W. distant 2 leagues; you leave the Execution rocks (so called) upon your starboard quarter. On Sand's point is a fixed light.

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Oyster Bay and Huntington,

Are principal harbours on the north shore of Long Island, about 10 leagues to the eastward of Hell-Gate. The channel into Oyster Bay lies over towards Lloyd's neck until you have passed the tail of the Middle, (which is a sand flat extending from Hog isle towards the Neck, within the distance of 180 fathoms) thence the bay is clear with good anchorage throughout.

~~*

Huntington Bay,

Has a fair entrance and sound ground. There are from 3 to 4 fathoms of water and muddy bottom within Lloyd's harbour on the W. and Cow harbour on the E. side of the bay. Fresh N. E. winds will swell the tides, which commonly rise about 7 feet perpendicular, to 10 or 11 feet.

~~*

Hell Gate,

And the narrow pass leading into Long Island Sound at the time of slack water and with a leading wind may safely be attempted by frigates. Small ships and vessels with a commanding breeze pass at all times with the tide. On the flood, bound into the Sound, you pass to the southward of the Flood Rock which is the southernmost of the three remarkable Rocks in the Passage. On the ebb

you go to the northward of the Mill rock, the stream of the tide setting that way and forming eddies in the flood passage, which at that time is rendered unsafe. The Pot, on which there are 10 feet at low water, shows distinctly by the whirl pools, as also the Pan which is a part of the Hog's Back.

Directions for vessels bound to New-York.

IF you fall into the southward, and make Cape May, it would be prudent to keep about 3 leagues off, to avoid Herrefoot bar, which lies from 4 to 6 leagues from the cape, to the northward, and 8 miles from the inlet of that name. This inlet is frequented by the Delaware pilots, having no other harbour to the northward until they reach Egg harbour. After passing Herrefoot bar, you may then haul up N. E. in 9 fathoms water, which course continued will draw you into 5 fathoms; as you approach Egg harbour, you will there have fine white and black sand intermixed with small broken shells; by continuing the same course, you will deepen your water to 8 or 9 fathoms, and so continue till you draw near Barnegat, which will alter your soundings materially, as there is a channel runs in a S. E. direction from Barnegat. The soundings off the shoal is mud, shells, and gravel, mixed together. The shoal off Barnegat does not extend beyond 3 miles from the beach, and is very steep too; you may turn this shoal in 6 fathoms water, within pistol shot of the outward breaker. It would always be prudent in night time to keep in 9 or 10 fathoms water at least, in turning this shoal. The soundings are so much to be depended on, that the moment you loose the above soundings you are past the shoal, when you will have fine white sand and very hard bottom; you then may haul in for the land N. by E. which course will bring you along shore, in from 15 to 12 fathoms water; but if the wind and weather would permit, I would recommend hauling in N. N. W. which will bring you in with the southernmost part of the Woodlands, which is very remarkable, having no other such land in the distance from Cape May up to the Highlands, and can be distinguished by its being very near the beach, and extends to Long branch. By passing Barnegat in the day time it may easily be known, should you be so far off as not to see the breakers, you will see a long grove of wood back in the country, apparently 3 or 4 miles long, known to the coasters by the name of the Little Swamp, and lies directly in the rear of the inlet of Barnegat, so that by sailing to the northward, your having the north end of this land directly abreast, you are certainly to the northward of Barnegat; there is also another grove directly in the rear of Egg harbour, known by the name of the Great Swamp, which has the same references as respects Egg harbour—but that the one may not be taken for the other, it must be observed, the Great Swamp of Egg harbour will appear much higher, and in length 8 or 10 miles; neither can they be seen at the same time, as Barnegat and Egg harbour are 15 miles apart. Barnegat bears due S. by W. 45 miles from Sandy Hook. In hauling in for the Woodland before mentioned, you may, if the wind is off the shore, keep within a cable's length of it all the way, until up with the Highlands, and should your vessel not draw more than 10 feet water, you may continue until you come up with the northernmost part of the cedars that stand on Sandy Hook; then you must steer N. N. E. to give the False Hook a birth, keeping about half a mile from the beach, until you bring the * light-house to bear S. W. $\frac{1}{4}$ S. then steer W. by N. till you bring the light-house open with the east point of the highlands, then steer N. by W. which will carry you through the swash channel up with the buoy of the middle leaving it on the starboard hand.

* The light-house on Sandy-Hook contains a REVOLVING LIGHT. It is lighted with eighteen patent lamps, to each of which is fixed an eighteen inch Metallic Reflector. The strength of light in this lantern is greater than any other on the coast, and if properly attended may be seen at the distance of 10 leagues. The light gradually decreases as you approach it, but it is not totally eclipsed within 3 leagues.

tinually breaks, when covered, bearing S. E. by E. from the Cape, distant $1\frac{1}{2}$ mile which is bare at low water. After you have doubled the Cape steer north till it bears S. E. $\frac{1}{2}$ S when you must steer N. W. till you deepen into 7 and 8 fathoms. In running the above course, you will have from 5 to $2\frac{1}{2}$ fathoms, before you come into 8 fathoms, which is 3 leagues distant from the Cape. After you have got into 8 fathoms, you will immediately come into 3 fathoms, when you must steer N. W. by W. 5 leagues, which will carry you into the main channel, between the Brandywine, on your larboard, and Cross ledge on your starboard hand, bearing N. N. W. and S. S. E. from each other, distant 3 leagues. In running the above course, you will have 3, $3\frac{1}{2}$ and $2\frac{1}{2}$ fathoms, till you come near the main channel, when you will deepen into 5 fathoms, which is a swash, that runs up to the eastward of the Cross Ledge; still keep your N. W. by W. course till you have crossed this swash, when you will shoal your soundings into $2\frac{1}{2}$ fathoms, and then deepen into 7 fathoms, which is the main ship channel, when you must steer N. W. till you have only 5 fathoms, which is on the Fourteen feet bank, and then alter your course to N. N. W. for the buoy of the Cross ledge. One league distant from this ledge, lies a shoal called Joe Flogger, bearing W. S. W. from the buoy.



*Directions for sailing in by *Cape Henlopen.*

BRING the light house to bear west and run for it till within 2 miles. When abreast of it you will have 15 or 16 fathoms water. After you have passed it, steer W. N. W. till you bring it to bear E. S. E. where you may anchor in 3 or 4 fathoms. If you intend running up the bay, bring the light-house to bear south, and steer N. by E. with a flood tide, and N. by W. with an ebb. The flood sets W. S. W. and the ebb E. N. E. In steering the above course 11 or 12 miles, you will make the Brown, which you leave on your larboard hand: It has a buoy on it. Continue your course north till you bring Cape May to bear S. E. by E. when you will make the Brandywine on your starboard hand, which has a buoy on it; then steer N. W. by N. or N. W. by N. $\frac{1}{2}$ N and you will have 7 or 8 fathoms water. The channel between the Brown and Brandywine is not above one mile wide. South east moon makes high water here at full and change. There are two banks about midway between the Brandywine and Cross ledge, called Fourteen feet bank and Ten feet bank, the former you leave on your larboard, and the latter on your starboard hand. These banks are not in the way with a fair wind, for they lie about N. W. by W. and S. E. by E. Cross ledge lies 9 miles from the Brandywine, which you leave on your starboard hand; it has a small vessel with a mast in her, for a buoy, which you may see 2 or 3 leagues. Cross ledge is about 8 miles long, bearing N. W. by N. and S. E. by S. the middle you leave on your larboard hand, (on which the buoy is placed.) When you pass the middle, steer N. W. two leagues for Bombay Hook, and when it bears N. W. or N. W. by W. you must be careful of a bar that lies $1\frac{1}{2}$ mile from it, called Bombay Hook bar, which has not more than 6 feet on it, at low water. Your course to Reedy island, with a fair wind, is N. W. by N. distant 15 miles. If you have the wind ahead, be careful of Stony point ledge, which you leave on your starboard hand, as the channel is not more than 2 miles wide. This ledge is partly dry at low water, and bears S. E. from Reedy island, distant 4 or 5 miles.

* Cape Henlopen lies in north lat. $38^{\circ} 47'$, and in west long. $75^{\circ} 10'$. There is a light-house here, a few miles below the town of Lewis, of an octagon form, handsomely built of stone, 115 feet high and its foundation is nearly as much above the level of the sea. The lantern is between 7 and 8 feet square, lighted with 8 lamps, and may be seen in the night 10 leagues at sea. Vessels off the Delaware, upon hoisting a jack at the fore topmast-head will be immediately furnished with a pilot. None, however, are to be depended on, unless they have branches, and a certificate from the board of Wardens of Philadelphia.

Directions from Reedy Island to Philadelphia.

WHEN you pass Reedy island, be careful of a long shoal that lies to the N. N. W. of it 1½ mile in length called the Pea Patch, which you leave on your starboard hand. In passing said shoal point, keep your larboard hand best on board till you bring the river to bear N. E. or N. E. by N. when you may stand up for New-Castle. This place is 40 miles from Philadelphia. When you have passed it about a mile, you give the larboard hand a birth, as there is a flat shoal near half a mile off. If you have a fair wind, you may keep in the middle of the river. This river winds from New-Castle to Marcus Hook, from N. E. to E. N. E. distant 20 miles. Your course from this to Chester island is N. E. by E. 4 miles. You leave said island and a long low point that lies W. S. W. from it, on your larboard hand, giving it a good birth, and keeping your starboard hand best on board, till you come up with *Billings' port, (which is 12 miles from Philadelphia,) when you will haul up for Mud fort; but before you come up with this fort you will see a black buoy, in channel way, which you may go close to. Run direct for this fort which is an E. N. E. course, till you are abreast of it, when you will see a small island on your larboard, and another on your starboard hand, which you must go between. When you have passed between these islands, steer E. by N. two miles, when you must haul up N. E. by N. for Gloucester point, distant one mile, from which you must keep your larboard hand best on board, and steer north three miles, which will carry you opposite Philadelphia.

TIDE TABLE.

MOON	}	S. E. by E.	} make full sea at	Cape May.
		S. E.		Cape Henlopen.
		S. S. E.		Bombay Hook.
		S. by E.		Reedy Island.
		S.		New-Castle.
		S. S. W.		Chester.
		S. W.		Philadelphia.

SITTING OF THE TIDES WITHIN THE BAY OF THE CAPES.

First Quarter Flood	-	-	-	-	-	W. N. W.
Second to last Quarter	-	-	-	-	-	N. N. W.
First Quarter Ebb	-	-	-	-	-	E. S. E.
Second to last Quarter	-	-	-	-	-	S. S. E.

Directions from Cape Henlopen to †Cape Henry.

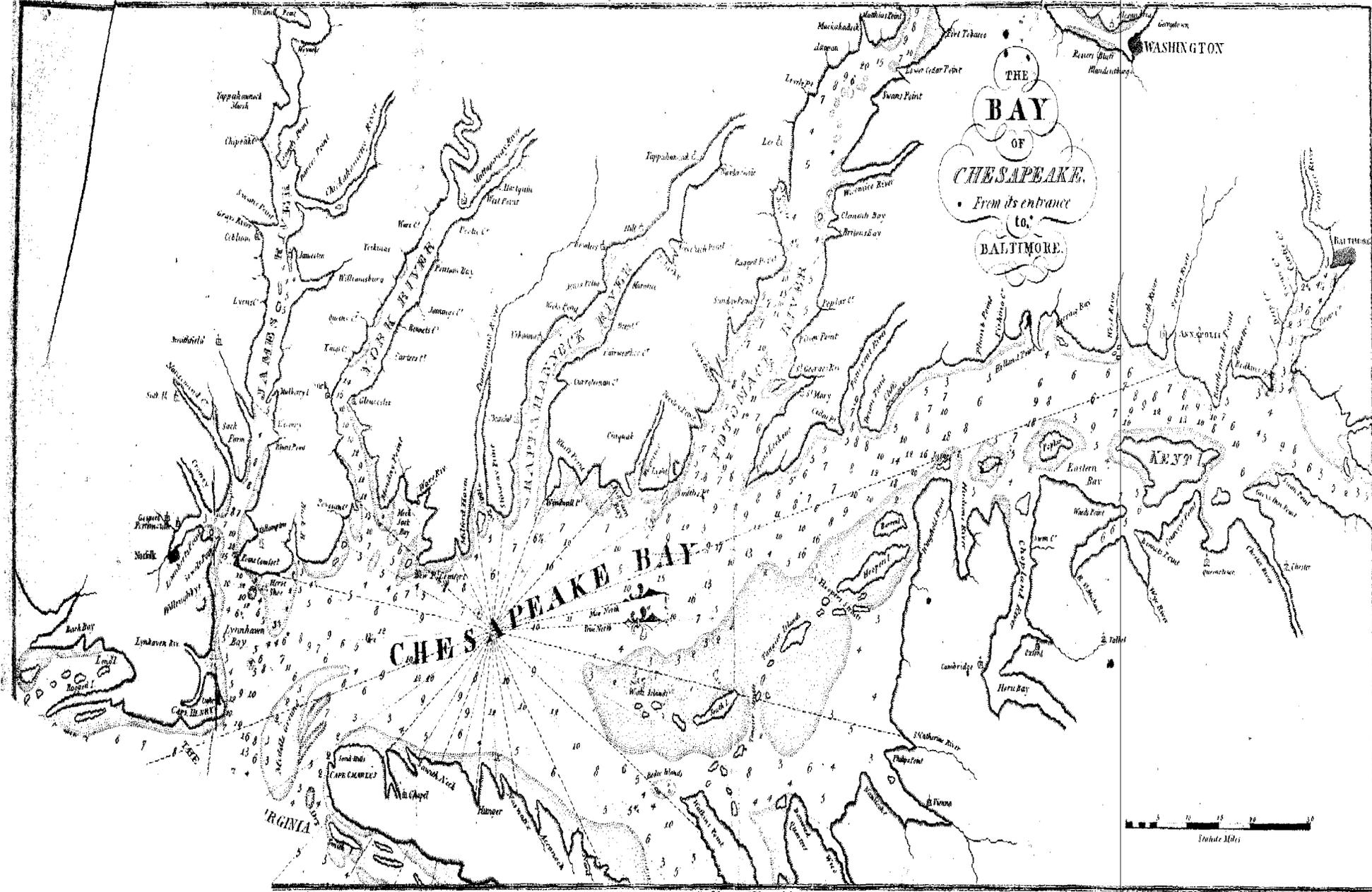
WHEN you leave Cape Henlopen, bound to Cape Henry, give it a birth of 3 or 4 miles, and steer S. S. E. 10 leagues, as there is a shoal bank that lies S. by E. from Cape Henlopen, 11 leagues distant, called Senepuxen. It lies 5 leagues from land. If you turn in or out by Cape Henlopen, be careful of the Hen and Chickens, which lie S. by E. from said Cape, one league distant. There is a bank that lies S. E. by S. from the light-house, distant 5 leagues, which has not more than 5 fathoms water on it. When you judge yourself to the southward of Senepuxen, then you may steer S. by W. 10 or 11 leagues, which will bring you the length of Chincoteague shoals, which lie in latitude 37° 58' N. bearing due south from Cape Henlopen, 15 leagues distant, and 2 leagues from land: between it and the shore there are 10 and 12 feet water.

Remarks on the land from Cape Henlopen to Chincoteague Shoals.

REHOBOTH BAY lies 9 miles to the southward of the light-house. This Bay is only for small vessels that draw not more than 6 feet water. Finwick's island lies 15 miles to the southward of the light house, which island parts

* This is a high sandy point and bluff.

† This Cape lies 12 miles S. by W. of Cape Charles, both of which form the entrance of Chesapeak bay.



Delaware from Maryland. This island has a grove of trees on it, and you will have 6 or 7 fathoms water, within a league of the land, and a strong current setting to the southward. When you are within half a mile of Senepuxen and Chincoteaque shoals, you will have 12 fathoms water. The land from Chincoteaque to Cape Charles makes broken land, with islands, and several small inlets. There is a good harbour within Chincoteaque shoals, which goes by the same name. You leave Chincoteaque shoals on your larboard hand, and Matomkin harbour about 3 leagues W. S. W. from Chincoteaque. Matomkin harbour has 12 feet water on the bar at spring tides.

In running in for the bar you will have gradual soundings from 7 fathoms. One cable's length from the bar you will have $2\frac{1}{4}$ to 2 fathoms.

In running over the bar, keep the north shore on board and steer S.W. On the larboard hand, one mile from the bar, give the point a small birth, and round in to the N. W. and anchor in 4 fathoms water.

To the northward of the bar, one quarter of a mile, lies the wreck of a vessel. From the bar up the inlet the navigation is very dangerous, being filled with Oyster beds.

These are very dangerous harbours in a gale of wind, but you may ride along shore with the wind from N. W. to S. W. When the wind blows hard at N. E. or E. N. E. and you are in sight of Chincoteaque shoals, your only chance for safety is to stand to the southward, for you cannot clear the land to the northward, or go into the harbour of Chincoteaque, which lies about N. W. 6 miles from the south end of the shoals. When the wind is to the eastward it is generally thick weather on the coast. After you pass the southward of Chincoteaque, steer S. S. W. for the light-house on Cape Henry, for the northern parts of Machapungo shoals lie 4 or 5 leagues to the northward of Smith's island, and the southern part of them comes near abreast of said island. In steering to the S. W. westward 5 or 6 leagues S. E. of Smith's island, you will have 12 or 13 fathoms, and in some places 3 and 4 fathoms. When you are 20 leagues from land, in the latitude of $37^{\circ} 30'$, you will have from 40 to 45 fathoms; but when to the southward of Cape Henry, you will have from 7 to 8 fathoms, within a league of the land, and a strong southerly current, which in general runs from 2 to $2\frac{1}{2}$ knots an hour.

Directions for sailing in by Cape Henry Light-House.

WHEN coming from sea in the latitude of Cape Henry, you meet with soundings about 25 leagues off, which you may observe by the colour of the water. On the south edge of the bank you will have 40 fathoms water, which will shoal to 20, and still decrease as you approach the shore, generally sandy bottom. In clear weather, you may see the land when in about 10 or 11 fathoms, regular soundings, at which time you will be about 5 leagues to the southward of it. To the northward of the land, in 6 fathoms, the soundings are irregular, and the ground coarser. In coming in, with the wind northwardly, you must be careful of the outer part of the Middle ground, which lies 14 miles E. N. E. from Cape Henry, and 7 miles S. E. by E. from Cape Charles. You may go so near it as to bring Cape Henry to bear W. $\frac{1}{2}$ S. which will carry you round the tail of it in $4\frac{1}{2}$ or 5 fathoms water, when you will deepen into 11, 12, or 13 fathoms, and then haul away for the bay, the Cape being steep too. The channel between the Cape and Middle ground, is about 4 miles wide, and 8 fathoms water close to the latter.

With a fair wind, you may bring the light-house to bear west; but if you have the wind ahead, and are obliged to turn in, you may stand to the southward till the light-house bears N. W. by N. and to the northward till it bears W. S. W. You will have 9 or 10 fathoms within a mile of the light-house, and from 6 to 5 fathoms close to the Middle ground.

General Directions for the Horse Shoe.

IN coming in by Cape Henry, and no pilot, with a free wind and commanding

breeze, tide either ebb or flood, bring Cape Henry light to bear E. S. E. and steer W. N. W. and you will get soundings on the Shoë 7, 6, to 5 fathoms as after described; after that make towards the south side and follow directions given for Hampton Roads, page 171.

Directions for New-Point Comfort.

WHEN you bring Cape Henry to bear S. S. E. you may steer N. N. W. 8 leagues, which course and distance will carry you into New-Point Comfort. There is a shoal which lies east from the point distant 2 miles, and four rivers that empty into this bay or harbour, viz. Severn river, Way river, North river, and East river. These rivers are all navigable for vessels of 50 or 60 tons, and considerable places of trade.

Vessels at anchor in New-Point Comfort are exposed to the wind from E. S. E. to S. E. and I would therefore recommend in that case to go into Severn river, where they will lie safe from all winds. Your directions for this port are to bring the south point of New-Point Comfort to bear E. by S. and steer W. by N. 2 leagues, which course you will continue till Severn river bears W. S. W. when you must steer into the river W. S. W. or S. W. by W. which will carry you safe, where you may lie land-locked from all winds. In running for this river you will make two bunches of trees on your larboard hand, which at a distance appear like two islands, but as you approach them you will find they are on the main land. In going into the river, you must keep your lead going and keep in the middle, and go between two points of marsh, and you will have no more than 3 fathoms between New-Point Comfort and Severn river, muddy bottom. You may go to sea from this river with the wind from S. W. to N. W.

Directions for those bound to the Capes of Virginia.

COURSES BY COMPASS.

IN coming from sea and falling into the northward, you may make an island called Hog island, and also Machapungo island; the latter is a small island. Hog island and Smith's island are about 7 or 8 leagues from each other, and a stranger may take the one for the other. Hog island is longer than Smith's and the trees stand more open and are not so thick as on Smith's island, and in going on to the southward from off Hog island, you will make Sand hills which lay between Hog island and Smith's island, being a sure mark you have not passed Smith's island. Be careful not to come nearer than 7 fathoms when off the Sand hills, as nearer than 7 fathoms the ground is broken.

Smith's island is the first island after passing the Sand hills above mentioned; on the northern end of it there are some straggling trees which appear like a grove, but which join on to the island. As you draw up with Smith's island, you may haul into 6 and 5 fathoms, till you get near abreast of it.

Smith's island is a good place to anchor under, with the winds from N. N. W. to W. N. W. and vessels often come to there if the wind is coming out from N. and westward.

If you intend to anchor there, bring it to bear W. S. W. and run for it, and you may go in as near as your draft of water will admit, into 3 fathoms or less, if you choose: you will have blue mud and sand. And when you get under way from thence steer S. by W. till you cross the North Channel in $7\frac{1}{4}$ fathoms; keep on until you raise your ground into 5 fathoms on the Middle Ground, then steer S. W. which will cross the middle in 4 fathoms, keep on S. W. until you deepen into 6 or 7 fathoms, ship channel; then with a strong breeze steer W. by N. which will carry you across in deep water until you raise your ground on the Shoë. When at anchor under Smith's island, Cape Henry light bears about S. S. W.

In coming in from the southward, bound to Cape Henry, keep in 7 fathoms until you begin to draw up with False Cape which lies about 7 leagues from Cape Henry towards Currituck; then 9 to 10 fathoms, is full near enough to go to False Cape. After you have got to the northward of False Cape, you may then keep again in 7, 8 and 9 fathoms, (ship channel) till you get up with Cape Henry.

From off Roanoke the soundings along shore is hard sand all along until nearly up with Cape Henry, when it is sticky bottom, and you will be in channel way:

The shore between False Cape and Cape Henry makes in like a bay, something like Lynn-Haven bay, and in thick weather a stranger might mistake it for Lynn-Haven bay, and False Cape for Cape Henry, if it is so thick that the light-house on the latter cannot be seen; but in round False Cape, it is all hard bottom, and in Lynn-Haven bay it is soft or sticky bottom, and in some places very tough bottom.

The passage between Cape Charles and outer middle is little known, and not frequented by large vessels. It is only used by small vessels of 8 or 10 feet water.

Directions for Hampton Roads.

WHEN abreast of *Cape Henry light steer W. by N. or W. $\frac{1}{2}$ N. till you get on the Horse Shoe in 5 fathoms sandy bottom. There are no soundings at 5 fathoms on those courses between Cape Henry and the Shoe. The first soundings on the Shoe on those courses, are 6 or 7 fathoms, a sticky or tough bottom, and the distance about 4 miles from Cape Henry light, but the 5 fathoms sandy is about a mile farther on the shore (say about 5 miles from Cape Henry light) where vessels can anchor. Then steer west until you get on the south side of the channel for an ebb tide; but tide afloat, steer W. $\frac{1}{2}$ N. or W. by N. Those courses will carry you into 5 fathoms on the south side, then you may steer W. N. W. which will carry you into 6 or 7 fathoms, sticky bottom, until nearly up with Willoughby's Point; then bring Old Point Comfort light to bear west. or W. by S. and run for it until nearly up with it, (say within half a mile) but take care and go no nearer to Hampton Bar on the north side, than 10 fathoms, it being steep too; then haul up S. W. by W. till you bring Old Point Comfort light to bear about N. W. then steer S. W. for the Roads, 5, 6, or 7 fathoms, good anchoring, but go no nearer to south shore than 9 fathoms lest the Bar off Sowell's point hooks you in. Should you, after passing Willoughby's point, fall in 14 or 15 fathoms, †Old Point Comfort light-house bearing W. N. W. steer up S. W. by W. but go no nearer to Hampton bar on the north side than 10 fathoms, it being steep too, until you pass Sowell's point, when Old Point Comfort bearing N. E. you will fall into 7, 8, and 9 fathoms, good anchoring.

REMARK. In steering W. N. W. as above, should you deepen your water to 9, 10 fathoms, or more, you may know you have passed the bar off Willoughby's Point.

If going along on the South side you shoalen your water from 5 fathoms, haul off to the northward and keep in about 6 or 7 fathoms till you judge yourself nearly up with Willoughby's point; go no nearer to it than 7 fathoms. By hauling to the northward you will deepen your water.

On the Horse Shoe side, the bottom is hard sand, and on the south side it is soft bottom until drawing on to Willoughby's point, where it is hard: Therefore being on the south side where the ground is soft, you may always know drawing up with Willoughby's as soon as you get hard sand bottom. Then haul off as before directed for Old Point Comfort light.

Of the Thimble. It is a small lump on the Horse Shoe, with about 8 feet water on it. It is steep too, say 7 fathoms, but being small it is quickly passed. It lies a little below Willoughby's point, on the opposite side, to avoid which is the reason why it is necessary to get soundings first on the Horse Shoe. The Thimble is about $1\frac{1}{2}$ or 2 miles off the shore.

Black river point bearing N. N. W. you are abreast of the Thimble.

There is good anchoring all over the Shoe, from $3\frac{1}{2}$ to 4 miles from land to the tail or outer part of it, and nigher in shore for small vessels.

As the setting of the tide varies much at different stages thereof, attention

* Cape Henry light-house is situated on the larboard hand going in, is about 90 feet from the surface of the water, and cannot be seen a great distance. There is a house erected near the light-house, for the accommodation of pilots.

† Old Point Comfort light-house lies on the starboard hand, and bears W. by N. from Cape Henry light, 4 leagues distant.

should be paid as well to the bearing of the light as the soundings, when running up from the cape to Willoughby's point lest you cross the channel and run on a lump of the Horse shoe, called the Thimble, (as before described) which has only 3 feet water on it, and is steep too (say 7 fathoms)—this lump lies a little below Willoughby's point on the opposite side—to avoid which is the reason why it is necessary to take the soundings, as the south side of the channel is in general sticky bottom, and on the horse shoe it is hard sand.

From Hampton Road to Norfolk the channel is too intricate for strangers to approach without a pilot, and they must anchor in the road.

NOTE.—For the benefit of strangers we add, that the present regulations for Pilots are : If you are bound into Hampton Roads, and are so far in as to bring Cape Henry light to bear S. by E. before you receive a Pilot, a Hampton Pilot cannot demand more than half pilotage, which is six dollars ; twelve dollars is full pilotage for large or small vessels up to the Roads ; after that there is another pilotage, at a certain rate, which is 38 cts. per foot.

Directions for running from Cape Henry up the Bay to Baltimore.

WHEN you come in from sea and are bound up the bay, bring Cape Henry light to bear S. S. E. and steer N. N. W. about 4 leagues, which will carry you to the northward and westward of the Middle ground that lies between the two capes, and when you have Smith's island (off Cape Charles) to bear E. you will be to the northward of this shoal. If you have the wind ahead, and are obliged to turn to windward, you must not stand further to the eastward after the light-house (or the cape) bears S. S. E. as the western part of the middle ground is steep. In standing to the westward, you may go into $3\frac{1}{2}$ and 4 fathoms without danger ; but in standing to the eastward, you must not go into less than 8 fathoms as you will be near the Middle ground. If you wish to anchor at New-Point Comfort, which bears from the Cape about N. W. by N. distant 8 leagues, you must take care of the spit that runs off the point about S. E. 2 miles. Keep to the westward of this point of sand, and you may run in under the point and anchor in 4 or 5 fathoms water, fine bottom, where you will be secure from northerly or N. E. winds. In running from York River, when you open Iron Point east of New Point Light, and bound up the bay, you will pass York spit, in 3 fathoms water. After you are clear of the Middle ground, as before directed, and have the cape to bear S. S. E. and a fair wind, you may steer up the bay north ; come not to the westward of north till you have Gwin's island to bear W. to avoid a shoal called the Wolf trap, which lies N. N. E. $2\frac{1}{2}$ leagues from New-Point Comfort, and S. E. by E. $1\frac{1}{2}$ league from Gwin's island, which is but small. [Gwin's island lies off Hill's bay, north from Point Comfort, 3 leagues distant.] From the Wolf trap steer N. about 15 leagues, which will carry you to the mouth of the Potomack. When you have New-Point Comfort to bear west, you are within 10 leagues of Watts' island. In running the above course and distance you will have from 10 to 4 fathoms before you come up with the islands. If you should come into 3 fathoms as you approach these islands, you may haul a little to the westward, when you will deepen your water. Off Watts' and Tangier's islands the soundings shoal gradually. If you want to go into Rappahanock river, which is about 6 leagues to the northward and westward of New-Point Comfort, and $1\frac{1}{2}$ league from Gwin's island, you must, when it bears about N. W. run for it, leaving Piahitank on your larboard hand, where you will have from 7 to 3 fathoms. As you come up with the larboard head of the river, keep your soundings on the larboard hand from 3 to 7 fathoms, and not deepen your water more than 7 fathoms to the northward, to avoid a long spit of sand that runs off 2 miles S. E. from the northern head of the river, which is very steep, but keep round the southern head, in the above depth of water, where you may anchor in 7 or 8 fathoms good bottom, and lie safe from all winds.

After you are up the bay, as far as Watts' island, and have it to bear about E. S. E. you will deepen your water from 5 fathoms to 10 and 12, muddy bottom. Continue your course N. until Watts' island bears S. E. and *Smith's point light

* A light-house has been erected on Smith's point.

(which is the southern head going into Potomack river) bears W. southerly, when you will be in 10 or 12 fathoms water. If you deepen your water to 15 or 20 fathoms, you will be very near the bad spit or shoal that runs off from Smith's point into the bay $1\frac{1}{2}$ league. Keep your soundings into 10 or 12 fathoms on the Tangier's side, as before directed; you may then haul up N. W. by N. for Point Lookout, which is the northern point of Potomack river, and come to within 1 mile of the point on the western side of the bay, and have 4 and 5 fathoms water, muddy bottom. When you are up with Potomack river, and would wish to harbour, having the wind down the bay, you may run in round Point Lookout, giving it a small birth, and anchor, where you will be sheltered from all northerly winds.

When you are up as far as Point Lookout, and have the wind ahead, you have a good channel to beat in, up as far as Patuxent river. You may stand on each tack to 4 or 5 fathoms; but in standing to the eastward, when you have 9 or 10 fathoms, it is best to tack, as the ground rises suddenly to 4 or 5 fathoms, and then lessens into 2, hard sand; the western side is more regular. Your course from Point Lookout to Patuxent river, with a fair wind, is N. by W. $\frac{1}{2}$ W. and the distance 5 leagues, in 7 and 10 fathoms water, which will carry you up with Cordar point, which is pretty bold, and makes the south point of Patuxent river. If the wind is to the northward, and you cannot get into Patuxent, (which is often the case,) you may run in under Cordar point, and anchor in 3 or 4 fathoms, good bottom, and secure from the wind down the bay.

Patuxent is as remarkable a river as any in the bay, having very high land on the north side of the river with red banks or cliffs. If you go into this river, give Cordar point a small birth, and stand to the northward till you have the river open when you may run in for Drum point, which is on your starboard hand. This is a sandy bold point, with some small bushes on it. Double this point, and come to in $2\frac{1}{2}$ and 3 fathoms water, where you will be secure from all winds. In beating into this place, you may stand to the north side for the high red cliffs to 3 fathoms, and to the south side to 5 fathoms water, and in the channel you will have 7 fathoms water. When standing to the south side of the river, you will see some buildings on the north side of the river, above Drum point; as soon as these buildings come on with Drum point you must tack, to avoid a spit that runs off from the south side of the mouth of the river.

If you cannot get up the bay, you may anchor under the high cliffs, and lie safe from northerly winds in 4 or 5 fathoms water.

If you should harbour in Patuxent, when you come out, bound up the bay, give the high land on the northern side of the river something of a birth, and also give Cow point a good birth, as a large spit runs off some way, which is very bold. You will have 8 fathoms, and before the next cast of your lead you may be ashore. Run from Patuxent into the bay till you have 9 or 10 fathoms water, when you will be near mid-channel. Your course up the bay, when in the channel, is N. by W. $\frac{1}{2}$ W. to Poplar island, distant 8 or 9 leagues. In running this course, you will have from 10 to 15 fathoms. When Sharp's island bears E. you may find 18 fathoms, muddy bottom. After leaving Patuxent river, if you intend to go into Great Choptank river, you must leave James' island (or point) on your starboard, and Sharp's island on your larboard hand, giving both a good birth, as there are long spits off from both these places. After you have passed James' point, steer away about N. N. E. in 7 and 8 fathoms, which will carry you in under Sharp's island, where you may anchor within half a mile of the island, and lie secure from northerly and N. W. winds, and, if you wish it, take a pilot at this place. After you are up with Poplar island, and it bears E. you may then steer away about N. distant $5\frac{1}{2}$ leagues, which will carry you up to Annapolis river. After leaving Poplar island, the next you come to is Kent island, between which makes Wye river. If the wind comes ahead when you are up as far as the southern part of Kent island, you may run in under it, opposite Poplar island, and anchor in 6 or 7 fathoms water, and lie secure from all winds except S. W.

The land on the western side of the bay, from Patuxent to Annapolis river, is

something high, with several bays, such as Herring and West river bays, where the soundings are gradual on both sides. You will have, in running from Poplar island to Annapolis or Talley's point, (which is the southern point of Annapolis river,) from 7 to 15 fathoms water. Give Thomas's and Talley's point a good birth as there are long spits off from both places. If you go into Annapolis river, give Talley's point a good birth, and haul into the westward for the mouth of the river, taking your soundings off the south side in 3 and 4 fathoms water, and pass in between Talley's and Green bush point, which you leave on your starboard hand, giving said points a birth of an equal width, and run just above them, where you may anchor in 3 and 4 fathoms, and lie secure from all winds.

After you are up with Annapolis, and bound to Baltimore, when in the middle of the channel, your course is N. by E. about 5 leagues, which will carry you up to Baltimore river. Come not to the northward of N. by E. for fear of Rattle Snake point and the Bodkin shoals, which you leave on your larboard, and Swan's point on your starboard hand; this point is on the eastern side of the bay, to the northward of Kent island.

From Annapolis to the mouth of Baltimore river, you will have from 4 to 10 fathoms. Come no nearer the western side than $4\frac{1}{2}$ or 5 fathoms, till you have the river open, at which time Swan's point bears about E. S. E. when you may haul in for the river. The best mark is the north point a little open with a gap of woods on Sparrow's point, which will carry you in 3 fathoms water, which is the most you will have in this channel, soft bottom. Keep these marks till Bodkin point bears S. S. W. then steer W. or W. by N. into the river, giving North point a birth of about 1 mile. When abreast of North point, steer away for the White rocks, which you will see on the south side of the river, until you are abreast of them, when you must haul to the southward till you bring Leading point (which is high bluff woods) within 2 sails' breadth of Hawkins' point, and keep it till you are almost abreast of the rocks, when you must again haul to the southward, till you bring the said points within a small sail's breadth of each other, which must lead you up to Hawkins' point, to which give a birth of one quarter of a mile. There are several small shoals of about 2 fathoms, on each side of the channel, which are steep, and the channel between them not more than a quarter of a mile wide. When you come up with Hawkins' point, you may steer away for the Narrows, (on which the fort stands,) about N. W. by N. which course has nothing to obstruct you; you will have from $2\frac{1}{2}$ to 5 fathoms. When you are up with the Narrows, pass between the 2 points, and give the larboard side a good birth, to keep clear of a shoal just above the Narrows; then haul to the S. W. up for the wharves, on the point which is on the starboard hand, and there anchor, or proceed to Baltimore. If you leave the point keep your larboard hand on board, when you will find good bottom, from which you may proceed to the wharves, or come to with safety. [* * See Chart of Chesapeake.]

Rates of Pilotage.

American Vessels pay	\$ 3 00 down, and	\$ 4 00 up, per foot.
Foreign do. do.	4 00 do.	4 33 up, do.

Directions from New Point Comfort to Potomack River.

FROM this point a Spit extends S. E. 2 miles, which you will avoid by not going into less than 4 fathoms water. About $2\frac{1}{2}$ leagues N. N. E. from New Point Comfort, and 2 leagues E. from Iron Point, lies the Wolf-trap rock, on which there are 12 feet at low water; between this rock and Point Comfort there are 8 and 9 fathoms. From the Spit, which runs off from New Point Comfort, to the entrance of Rappahanock river, the course is N. by W. and the distance 6 leagues. You may keep in 5 or 6 fathoms water. Near to the Wolf-trap rock, there are 7 fathoms.

From the entrance of Rappahanock to the flat which runs off from Smith's point (which is the south side of Potomack river,) the course is N. and the distance 6 leagues. You may run in 5, 6, or 7 fathoms water. When you draw near the shoal which runs off from Smith's point you should not go into less

than 7 fathoms. This shoal extends about $2\frac{1}{2}$ miles E. S. E. from Smith's island; on its extremity there are only two fathoms water, and very near to it, eastward, there are 10 or 12 fathoms. The mark for the shoalest part of this sand, is a house with a white chimney, standing among the trees on the shore within Smith's island, open to the northward of the island, and bearing west. When this house bears W. by N. you are to the southward of the extremity of the shoal; and when it bears W. by S. you are to the northward of it. That which adds considerably to the danger of this shoal, in going either up or down the Chesapeak, is the broken islands which lie on the east side of the channel, and the flats of sand which extend from 5 to 8 miles to the westward from them.

The Tangier islands lie to the southward of Cooper's island, and the Tangier islands and Watts' island make the entrance of Pocomoke bay, which bay separates Virginia from Maryland on the eastern shore.

Potomack river separates Virginia from Maryland; its entrance is formed by Smith's point on the south side, and Point Lookout on the north side; the distance between these two points is about $3\frac{1}{2}$ leagues. On Smith's point is a light-house.

If you are bound to St. Mary's river, you must give Point Lookout, and also the shore about it, a good birth; and when you approach St. George's island, you must keep nearer to the main than to the shoal, which extends from the island. Your course into the river is N. W. and as it is all open to your view, you may anchor where you please in 5 or 6 fathoms water.

If you are bound to Wicocomack in Potomack river, your course from the east end of St. George's island to Ragged point is N. W. $\frac{1}{2}$ W. and the distance 4 leagues. On the south or larboard side, there are flats lying off from the shore, which in some places extend one mile; come no nearer to them than 7 fathoms: In the middle of the channel, you will have 11, 10, 13, 10 and 8 fathoms. You must give Ragged point a good birth, to avoid the shoal, which extends from it nearly one mile. From Ragged point to Clement's island your course is W. $\frac{1}{2}$ N. and the distance 2 leagues. In the middle of the channel you will have 6, 5, $4\frac{1}{2}$ and 7 fathoms water. On the south side, a little below Clement's island, is Nomine bay. From abreast of Clement's island steer W. N. W. in 6, 5, and 4 fathoms water, until you have Wicocomack river open; then pass pretty near to the island, which is on the east side of the entrance, in order to avoid the shoal which runs off from the point on the west side. Steer about north into the river, and anchor on the south side of Newton's point, in 5 or $4\frac{1}{2}$ fathoms water.

Directions from Potomack River to Patuxent River.

FROM Point Lookout a flat runs off a considerable way, which you must be careful to avoid, by not coming any nearer to it than 7 or 8 fathoms water. Opposite this point, the flat of Tangier islands extends so far to the westward as to narrow the channel of the Chesapeak to about $4\frac{1}{2}$ miles. This part of the flat is steep, and has 13 fathoms close to it. About 2 leagues to the northward of Point Lookout is St. Jerome's point, off which above 2 miles, there lies a shoal. About 3 leagues to the northward of St. Jerome's point, is Cordar point. Between them, 7 or 8 fathoms is a good depth to keep in; near to the flat on the east side, there are 10, 16, 9 and 11 fathoms.

Cordar point is on the south side of the entrance of Patuxent river: the ground is low and sandy, and has some straggling trees standing on it. From this point a flat extends to the eastward, and also to the northward. On the north side of this river there are high hills, called Cliffs, with trees on them; and from this side also a flat extends, but the shoalings on each side of the channel are gradual and the ground soft. In the middle of the channel there are 8 fathoms water. Higher up is Rously's point on the south side, and Drum point on the north side; the latter is a low sandy point. You may anchor without these points, or you may go further up the river, always observing the following general rule in all the deep bays throughout Virginia and Maryland, namely—To every point, more especially where the land is low, give a good birth in passing, because spits or flats of sand extend from them, and consequently the water is shoal in such places.

Directions for going from Cape Henry or Lynn Haven Bay, to York River.

AS Cape Henry S. by E. would lead you on the tail of the Middle ground, and as the proceeding with it at S. E. would carry you on the tail and north edge of the Horse Shoe, your keeping the cape on any bearing between S. by E. and S. E. will carry you through between the two shoals. On the tail, and along the north side of the Horse Shoe, the shoalings are gradual. With Cape Henry bearing S. S. E. or S. E. by S. steer N. N. W. or N. W. by N. until you bring Cape Charles to bear E. by N. you are then to the northward of the Horse Shoe, and may steer N. W. or N. W. by W. according as you have the wind and tide. As the ebb sets strong out of the Chesapeak over the Horse Shoe, you must not, with a northerly wind and ebb tide, approach any nearer to the shoal than 5 or 6 fathoms water. When you have brought New Point Comfort to bear N. and Black river point to bear S. by W. you are then abreast of the tail of York spit, in 3 fathoms water. When you are a little above Long isle, you must not come any nearer to the shore than 5 fathoms, until you enter the river above the marsh; then keep in 9 or 10 fathoms, and run up and anchor between York and Gloucester, in what depth you please.

With a contrary wind, stand towards the Horse Shoe in $4\frac{1}{2}$ or 5 fathoms, and from it into $6\frac{1}{2}$ or 7 fathoms, until you are abreast of the entrance of Pocasan, where there is a gut of 7 fathoms, which runs close to the entrance; you should therefore be careful to avoid going too far in, and thereby getting on the tail that extends from Toes marsh. When you have got thus far up, you should go no nearer to the shore on this side, than 7 or $6\frac{1}{2}$ fathoms all the way up to York Town. On the other side, you should not stand any nearer to the small isles on York Spit, than 10 or 11 fathoms: close to the tail of this spit there are 7 fathoms: close to the middle of it there are 10 fathoms; and close to it, abreast of the islands, you will have 13 fathoms, and before you can get another cast of the lead, you will be ashore. When you have entered the river, you must not come any nearer to the flat than 8 or 9 fathoms water. This flat extends from the north shore, almost one third over the river.

*Cape Hatteras.

THIS Cape lies about S. S. E. 37 leagues from Cape Henry; between them lie the inlets of Currituck, which is shoal; New Inlet, on which are 10 feet water; and Roanoke, on which are 8 feet water; at Roanoke the tide rises 4 feet. About 6 leagues N. by E. from the Cape lies a bank on which are 4, $4\frac{1}{2}$ and 5 fathoms water, extending N. by W. and S. by E. about 3 leagues, and is about 3 miles wide. The inner edge of this bank is about 3 miles from the shore, and the soundings between them 9, 10 and 7 fathoms. About 5 miles N. by W. from the north end of this bank, and 3 miles E. by S. from the north end of Hatteras island, there lie some small Knowls, on which are only 9 feet at low water.

* On the pitch of this Cape (which is low sandy land) a light-house was erected in 1799 containing a Fixed Light, which is painted white, and bears N. N. W. from Cape Hatteras shoal, 4 leagues distant; there is a good channel $1\frac{1}{2}$ mile from the light, keeping the land on board: the light bears from the S. W. part of the outer shoals, N. by W. $\frac{1}{2}$ W. and from the N. E. part, N. W. by N. distant 5 leagues—from the S. W. part of the middle shoals, within which vessels bound along the coast generally pass, the light bears N. N. W. and from the N. E. part N. W. distant 3 leagues. At Shell Castle island the light bears from the bar W. N. W. distant nearly two leagues. This Light is of little importance.

The light at Cape Hatteras, being 130 feet above the level of the sea, will be seen from a considerable distance without the outer shoals, and to a vessel steering in for Ocracock, W. by N.—W. N. W. or even N. W. by W. the light on the Cape will first show, and will continue to be seen till after the light appears within the bar.

The point of Cape Hatteras having made out into the sea since the light-house was built, the light now stands 3 miles back from the point of land that makes out from it.

Though the bearings of the Brown at Shell Castle Island from Ocracock bar, has been stated, yet it is not expected that any vessel will attempt to cross in the night; it has been mentioned merely that the master, in coming up with the bar in the night, may be enabled thereby to take that situation which may be most favourable for receiving a pilot, and crossing in the morning.

Cape Hatteras shoals extend 12 miles in a south easterly direction, with 10 and 12 fathoms on the extreme parts. The most dangerous shoal lies in lat. $35^{\circ} 6' N$: the middle of which is 10 miles distant from the Light-house, and has barely 2 fathoms water: between that and the Diamond Shoal, which lies almost directly off the cape, there is a good passage for small vessels, in moderate weather, or when the wind is off the land, but it would be always safest to go round the shoal in 10 and 12 fathoms.

The Light-house at Cape Hatteras exhibits a fine light when in order, and can be seen very plainly in 12 fathoms water on the outer part of the shoals, when only 10 feet above the level of the sea; but when on board a large vessel, it might be seen in 20 or 25 fathoms. The soundings from the Cape are 2, 3, 3, 2, 6 and 7 fathoms, and then deepens to 13, on the S. S. E. part.

It is high water at Cape Hatteras shoals, on full and change of the moon, at 3 o'clock and 45 minutes, and the tide flows from 4 to 5 feet, being governed by the winds in the offing, and in easterly gales it runs several feet higher. S. W. by W. $\frac{1}{4}$ W. from Cape Hatteras, 9 leagues distant, is Ocracock inlet, on which are 15 feet water. S. W. by W. $\frac{1}{4}$ W. from Ocracock inlet, 3 leagues distant, lies Cedar inlet, and S. W. from Cedar inlet, 6 leagues distant, lies Cape Look Out. Shell Castle Light stands on Oyster Bank, in Wallis' Channel 4 miles inside Ocracock bar, and is as before observed, of little consequence.

*Cape Look Out.

CAPE Look-Out lies in $34^{\circ} 34' N$. lat. and $76^{\circ} 37' W$. long. and the cape woods (where is a light-house) in lat. $34^{\circ} 36' N$. and long. $76^{\circ} 36' W$. The shoals extend from the Cape 15 miles, in a S. S. E. direction, and the broken ground as far as lat. $34^{\circ} 21' N$. In that lat. there are 14 and 15 fathoms water, and from thence to the Gulph Stream, the soundings are gradual, 95 fathoms; the tracts are faithfully laid down in the chart (published by the author) together with all the soundings from the outer part of the shoal to the edge of the Gulph Stream.

The outer part of Cape Look-Out shoals lie S. W. $\frac{1}{4}$ S. 70 miles from Cape Hatteras, and 69 miles S. W. $\frac{1}{4}$ W. from the outer part of Cape Hatteras shoals. Between the outer part of the shoals you will have about 20 fathoms. On the eastern part of Cape Look-out shoals there are five fathoms, near them on the western side are from 5 to 9 fathoms.

Old Topsail Inlet, or entrance to Beaufort, lies about 3 leagues W. N. W. from Cape Look-Out. It has 3 fathoms water, but the eastern side of the entrance is formed by a long spit, extending westward. The channel in lies first N. E. by E. and then alters gradually round the flat, which extends from the larboard or western side to the N. N. W. In proceeding up to Beaufort, you will have 3, 4 and 3 fathoms in the channel, and may anchor in 3 fathoms at low water.

W. N. W. from Cape Look-Out, 4 leagues distant, lies Cheeseman's Inlet, which is nearly dry.

W. by S. 6 leagues from Cheeseman's Inlet, lies Bougue Inlet, on which are 8 feet water: W. by S. $\frac{1}{2}$ S. 4 leagues from Bougue Inlet, lies New-River, on which you have 8 feet water: S. W. by W. 4 leagues from New-River lies New-Topsail Inlet, on which are 10 feet water. S. W. from New-Topsail Inlet 6 leagues distant you make Deep inlet, on which are 10 feet water. S. S. W. from Deep Inlet $5\frac{1}{2}$ leagues, lies New-Inlet, on which are 9 feet water.

* Cape Look-Out light-house stands on the extremity of Cape Look Out: it contains a fixed light, 100 feet above the level of the sea; the tower is wood, painted in stripes horizontal, alternately red and white: At a distance it has the appearance of a ship of war with her sails clewed up. This light may be seen from the outer end of Cape Look-out shoals, but vessels passing it ought rather to trust to the lead, than to making the Light.

This inlet is between the sea coast and N. E. end of Smith's island. It will admit vessels drawing 10 or 11 feet, and is about 2 miles wide at its entrance, having 18 feet water at full tide over the bar. It continues its breadth to the flat, and is navigable for large vessels 21 miles from its mouth, and 14 miles from Wilmington, to which town vessels drawing 10 or 12 feet can reach without any risk. S. E. by S. $3\frac{1}{2}$ leagues from the New Inlet, will carry you into 7 fathoms on the S. E. part of the Frying Pan Shoals. Soon as you deepen into 12 fathoms, haul up N. by W. for the Light-house on Bald Head, if bound into Cape Fear River.

*Cape Fear Light House.

BALD Head, a noted bluff at the mouth of Cape Fear River, is at the S. W. end of Smith's Island, and, with Oak Island, which is long and narrow, forms the main entrance into the river.

Cape Fear Light-house is situated near Bald Head. The iron lamp is 10 feet 9 inches in diameter, and about 15 feet 9 inches in height, from the floor to the top of the roof.

From the point of the cape the Light-house bears W. N. W. distance 4 miles and from the extremity of the Frying-Pan Shoal, N. W. by N. 8 leagues.

In sailing from the eastward, bring the light to bear N. N. E. and then steer in N. which will carry a vessel clear of the shoal, and bring her a short distance westward of the bar. Observe, however, if it is night, not to go in less than 7 fathoms water.

It may be necessary to observe to strangers, that, in passing the shoals, especially in a dark night, it is most prudent to steer west, in lat. $33^{\circ} 20'$ or $25'$ at most, until they shoal their water to 7 or 8 fathoms; by doing this, they may be sure of being to the westward of the bar.

Your course from Cape Fear Bar, when in 8 fathoms water, to clear Cape Roman Shoal, is S. W. and distance 90 miles. When sailing towards these coasts, it is prudent to keep nearly a degree to the southward of the latitude of the place you intend to make, until you reckon yourself on the edge of the Gulf Stream; when you must be directed by judgment, according to circumstances. Do not, if possible to avoid it, sail to the northward of $33^{\circ} 20'$; or at the highest, $33^{\circ} 25'$ until you obtain 10 fathoms water. In this depth you will be within the south or outer end of the Frying-pan Shoal, which lies in latitude $33^{\circ} 36'$. In approaching the coast, in $33^{\circ} 20'$ your first soundings will be from 30 to 35 fathoms; in this depth you will be very near to the edge of the Gulph Stream; you will have fine grey sand, with black spots, when you get into 17 fathoms, there is a long flat in this depth of water. In steering west you will, for the first 5 or 6 leagues, shoalen the water very little. When you come in 14 fathoms you shoalen your water quicker, but gradually. You will see the land from 10 fathoms water, if the weather be clear, and may then be sure that you are within the Frying-pan, from the outside of this shoal. To the westward of northwest, no land can be seen, when without the shoals.

[We decline giving directions for sailing into the ports of North Carolina as all the harbours are barred, and always subject to some alteration by every gale, particularly in the equinoctial storms; but the bars create only a part of the danger in sailing into those ports; it is the vast bed of shoals that lies within the bars, with their innumerable small channels which give to tide so many different directions that even the pilots who live on the spot find it difficult to carry a vessel in without some accident.]

The currents on the coast of North-Carolina are governed mostly by the wind—during the summer months, the prevailing winds are south-westerly, and

* Bald head Light-house at the entrance of Cape Fear, was taken down in 1813, is again rebuilding, and will be lit on the first day of April, 1817. It stands one mile from the sea, 90 feet high, and will contain a fixed light. The Lamps will be 100 feet above the level of the sea, and 50 feet above the tops of the trees that stand on the hills between the Light and the sea.

the currents then set in the direction of the coast to the eastward, and when the southerly winds cease blowing, it changes suddenly to the contrary direction, which is a sure precursor of a north-east wind.

The land on Cape Look-Out is very low, and cannot be seen more than a league in the clearest weather from on board a small vessel.

The North Bar of the New Inlet.

TO enter, the marks are, to bring the west end of Buzzard's Bay point of sand on H. Kelly's large white house in Smith-Ville, and the bearings will be S. W. by W. keeping the point of Smith-Ville with these bearings until over the bar, then keep the Spit of Sand or Beach that makes off from Federal Point close on board, which will carry you unto the River Channel, where there is good anchorage all along this sand, in three and four fathoms water. On this Bar there are 9 feet at low, and 14 at high water.

The Old Bar at New Inlet, or as now called, the South Bar.

In running in when the * Beacon bears W. or W. by S. you will make a thick and high hummock of woods, called Merryck's Wood Bluff, before you make the Beacon; but should the Beacon bear to the north of west, you will make the Beacon and Bluff at the same time, the former of which may be seen in clear weather, about 15 miles from a ship's deck, in about 10 to 11 fathoms water, and when first discovered has the appearance of a distant sail. As you approach the Beacon, the water becomes gradually shoal. In 4 to 5 fathoms water one mile and a half from the Beacon bearing W. S. W. to W. there is good anchorage, soft bottom.

In running in, bring the Beacon on with the south end of the Barracks, which you will continue until over the Bar, and near the beach, and so along the beach, until you are in the river. On the Bar, at high water, 11 to 12 feet, at low water six feet only. The depth of water and channel, however, are subject to variation, so that it is not advisable for strangers, except in cases of necessity, to run in without a pilot.

The Main Bar of Cape Fear River.

Vessels running down from the westward should not keep nigher the Middle Ground, than the Cape to bear E. by N. until they bring the point of Baldhead Island to bear N. half W. which is the course over the Bar, or until they pass the Buoy on the Breaker head. Be sure to keep on board this Buoy, on passing which immediately the course is N. W. or keep the Breaker on the larboard side close on board, which will direct you past Bald head. On this Bar, there are 13 feet at low, and 17 feet at high water.

The Western or Oak Island Channel,

Is to bring the point of Oak Island to bear N. E. by E. keeping this course until you get close in with the Beach, thence along the Beach until you pass Oak Island. There are 7 feet at low, and 11 feet at high water on this Bar.

Other directions for Oak Island Channel.

VESSELS drawing not more than 9 feet water, running into Wilmington through Oak Island channel, may bring the easternmost part of the lump of trees on the east end of Oak Island to bear N. E. by E. and run for it, which will carry them over in the best of the water, 7½ feet at low water, and 11 feet high water: As soon as you deepen your water over the bar, steer for the end of the sandy point of Oak Island till close up with it, then steer E. S. E. for opening Cape Creek, till you deepen into 4 fathoms, then haul up N. or N. N. W. along the beach until you get up with Fort Johnson, where you may anchor.

Directions for coming in from sea for the coast of North-Carolina.

WHEN you are steering in for this coast, you should endeavour to keep about a degree to the southward of the latitude of the place which you intend to make, until you reckon yourself upon the edge of the Gulph Stream, and then your own judgment will direct what course is best, according as you find the wind to blow. Do not, if possible to prevent it, go to the northward of 33° 20' N. lat. until you get into 10 fathoms water; in this depth you will be within the

* The Beacon is forty feet high, and stands on the main land, the north side of the entrance of Cape Fear River.

south or outer end of the Frying-pan shoal, which lies in lat. $33^{\circ} 36'$ N. In approaching the coast in $33^{\circ} 20'$ lat. your first soundings will be from 30 to 25 fathoms: in this depth you will be very near to the inner edge of the Gulph Stream. When you get into 17 fathoms, you will have fine grey sand, with black spots; in this depth of water there is a long flat. In steering W. you will, for the first 5 or 6 leagues, shoal the water very little; when you come in to 14 fathoms, you will shoal your water quicker, but gradually. In 10 fathoms water you will see the land, if the weather be clear; and you may then be sure that you are within the Frying-pan. From the outside of this shoal you can see no land bearing to the westward of N. W.

Georgetown entrance is 13 leagues S. W. $\frac{1}{4}$ W. from Cape Fear; between lies a bank, on which there are 5 fathoms water. The north end of this bank lies about $5\frac{1}{2}$ leagues S. W. by W. from Cape Fear; it thence extends S. W. $\frac{1}{2}$ S. $8\frac{1}{2}$ leagues. The inner or N. W. side of this bank is about 4 leagues from the shore; near to this edge, there are 10, 9, and eight fathoms water; it shoals gradually, as you advance towards the shore; this is called Long Bay. Near to the north end of this bank, there are 10 fathoms water; along its S. E. side there are 8, 7, and 6 fathoms; to the southward of this bank, there are several shoals.

From Cape Fear to Georgetown.

In sailing to Little River Inlet, which divides North from South Carolina, you pass Lockwood's Folly Inlet, which lies W. from Cape Fear Light $3\frac{2}{3}$ leagues distant: The land appears broken, and contains no safe harbour.

In continuing your course towards Georgetown, several other inlets may be discovered in clear weather, and at length you pass North Inlet, about 3 leagues from Georgetown light house; this inlet is the northern boundary of North Island, on which island the light house is situated; the entrance into this inlet is from the northward, the south breaker forming nearly a crescent, runs apparently across the mouth of the inlet: there is generally not less than six feet water on the bar at low water, but the depth varies with the direction and violence of the prevailing winds. The direction of this channel has been within a few years considerably, though gradually, changed by the elongation and curve of the south breaker throwing the channel more to the northward: in entering it in its present situation, Georgetown light house will bear about S. by W. distant 3 leagues; a small but distinct sand hill (the most northern on the north end of North Island) S. W. $\frac{1}{2}$ S. the most southern building on the south end of the opposite island W. by S.; you may then run in between the heads of the two breakers, rounding along the edge of the south breaker, and thus passing between the breakers into the harbour. The flood tide comes in from the S. E. and sets across the S. breaker, towards the N. breaker. On the N. end of North Island, about 3 leagues from the light, there is a village of about 20 or 30 dwelling houses, (a summer residence,) which is distinctly seen from sea, and often mistaken for Sullivan's Island near Charleston; there are several houses on the N. point of the opposite island. To small vessels this inlet affords a safe harbour: there are two passages leading from it up to Georgetown, but from the shoalness of the water they cannot be conveniently navigated except by boats; in cases of necessity, however, vessels of 6 or 7 feet draught may be navigated with some delay through the most southern, which is the deepest passage into the bay, or river, leading to the town.

Directions for sailing into Georgetown harbour.

The light house is situated in latitude* $33^{\circ} 16'$ and is erected on the southern point of North Island, on a low sandy spot; this Island is on the northern and eastern side of the harbour: the light house is a lofty, circular, white tower. In approaching it from the northward, the harbour is shut out from view by North Island, and the light house appears to be situated in a low wood. The light house bears N. N. E. from the outer shoal of Cape Roman, distant* about 6 leagues: in passing it either northwardly or southwardly, vessels will

* The reader will please correct this error in the table of Latitude and Longitude, which is laid down in Lat. $23^{\circ} 14'$, instead of the before mentioned.

find five fathoms water, within five miles of the land. The eastern bank (which is the most eastern and outer shoal) lies one and a half miles to the S. E. of the range of shoals that are before the entrance of the harbour, and within five miles of the land; on this bank there are about $7\frac{1}{2}$ feet water at low water, and about 12 feet at high water; there are five fathoms all round it. The light house bears from the eastern point of this bank N. W. about 2 leagues, and from the western N. N. W. at the same distance. The principal entrance into the harbour lies to the southward; vessels drawing from 7 to 8 feet water may (if a pilot cannot be procured) enter near high water, by bringing the light house to bear N. $\frac{1}{2}$ W. and running directly for it till within a hundred fathoms of the land; they will then have deep water on both sides for several miles up the bay. Several buoys are anchored on the bar, to mark the best water; in sailing by these, the following directions must be observed; the first buoy (the most southern) is on the S. E. point of the south breaker—this, in entering the harbour, you keep on the larboard hand; the second buoy is on the N. W. point of the north breaker, you keep this in entering, on the starboard hand, and continue your course to the third buoy, which is on the N. W. point of the Newcome shoal; this buoy you must also keep on the starboard hand. The channel here trends to the eastward for about a quarter of a mile to the fourth buoy; you then give this last a berth to the westward, or larboard, and steer about N. N. W. directly into the harbour. Vessels drawing eleven feet water may, with the assistance of a pilot, pass securely through this channel without the aid of spring tides. There is also an entrance which lies to the northward, under the southern point of North Island, near the light house; through this, if a pilot be procured, vessels drawing 8 or 9 feet water may be brought with safety. Vessels at sea will find deep water, and when the wind is to the southward and westward, convenient and safe anchorage near the land, about a mile and a half, or two miles, to the northward of the light-house. A common flood tide rises nearly four feet; it is high water on the bar at the full and change of the moon, about 7 o'clock.

Cape Roman.

CAPE ROMAN is very low land; it has neither tree nor bush, and appears, when seen at a distance, to be a sand left dry by the tide*. From the south entrance of Santee River, to about 2 miles S. W. of Cape Roman, there is a shoal which extends to a considerable distance from the land; the S. E. point of it lies about 5 leagues S. by E. from Georgetown light-house, and the S. W. point lies about $2\frac{1}{2}$ leagues S. E. from Cape Roman. Close to this dangerous sand there are 4 and 3 fathoms; the land is so low, that you cannot see it from the deck of a ship, at the extremity of the shoal.

The outer shoal of Cape Roman lies about 5 leagues S. S. W. from Georgetown light-house; between them lies the entrance of Santee river. The south entrance is $2\frac{1}{2}$ leagues from the entrance of Georgetown river, and 3 leagues from Cape Roman. Ships that fall in with the shoals of Georgetown entrance, should not come into less than 4 fathoms water; you are then about 10 or 12 miles from the land, and although the muddiness of the water is apt to frighten strangers, there is no real danger to be apprehended. The land here is low, and appears, when viewed at a distance, in hummocks, like the range of islands.

By steering W. N. W. from the S. W. part of Cape Roman shoal, you will soon see the island called Racoon Keys; it is a long narrow island, and lies about W. by S. from Cape Roman. When you see Racoon Keys, steer W. S. W. or S. W. by W. in about 5 fathoms water. As there is a shoal runs off about 5 miles S. E. by E. from the N. E. end of Bull's Island, you should take care to avoid it in passing. Senee Bay, or Bull's harbour, lies between Racoon Keys and Bull's island. As there are shoals lying off the west end of Racoon Keys, you should anchor near to Bull's island, in 6 fathoms water.

* A wind-mill has been erected on the point of Cape Roman, which at a distance, having the appearance of a light-house, especially in hazy weather, will easily deceive strangers, who from want of exact latitude in approaching the coast, may mistake it for Charleston Light-house. In falling in with this wind-mill, you must not come into less than 7 fathoms water, bringing it to bear W. N. W. Then you are abreast of the Cape Shoals, and Charleston Light house will bear W. S. W. about 15 leagues.

From the shoal off the N. E. end of Bull's island to Charleston bar, the course to go clear of the Rattle Snake, is S. W. by W. and the distance 7 leagues. There are four islands between Sewee Bay and Charleston Bar, viz. Bull's, Cooper's, Devies, and Long Island. Flats extend from all the islands, along which the soundings are regular. With Charleston churches to the northward of Sullivan's Island, you will be in $5\frac{1}{2}$ fathoms water, on the edge of the Rattle Snake; and, when the churches are open to the southward of Sullivan's Island, you are clear of that shoal. You should approach no nearer to this bank than in 5 fathoms water.

Directions for sailing into Charleston, (S. C.)

THE entrance of Charleston bar lies in lat. $32^{\circ} 44'$ N. In running in for Charleston *light-house, which may be seen some distance at sea, you will have gradual soundings. When you come near the bar you may see the north and †south breakers, between which is the entrance over the bar. In running over the bar, you must have the light-house to bear W. by N. $\frac{3}{4}$ N. and run in, which course will carry you clear of the north sand which lies within the bar. Continue this course between the 2 breakers, when you will find from 12 to 17 feet water, according as the tide may be. Follow the above course, taking care that the tide of flood does not set you on the north breakers, till you come within half a mile of the light-house, when you may anchor in 3 fathoms water. Buoys are in general placed on the bar, in 12 feet water at low tide. The buoys are black.

There is another ship channel to the southward of this, called Lawford's channel, where you will have from 10 to 12 feet, according as the tide may be. In going into this channel, the course is N. N. W. There is a buoy here also. This anchorage is called Five-fathom hole, but it has no more than $3\frac{1}{2}$ fathoms. From thence your course is about N. by E. $3\frac{1}{2}$ miles, in 6 or 8 fathoms water, which will carry you abreast of Cumming's point; when this point bears west, half a mile distant, steer N. N. W. for the S. W. part of Sullivan's island; you will have from 7 to 10 fathoms water. You may go within a quarter of a mile of Sullivan's island, as it is bold. Your course from thence to Charleston is about W. $\frac{1}{2}$ N. and the distance $4\frac{1}{2}$ or 5 miles. When you bring Hog Island to bear N. and Fort Johnson to bear S. by W. you are up with the eastern end of the Middle ground, which you must not go nearer to than 3 fathoms. You may then steer nearly W. keeping in 4 or 5 fathoms water, which will carry you between the Marsh or Shut's folly and the Middle ground. This channel is narrow, not being more than a quarter of a mile broad, as the flats lie off from Shut's folly one quarter of a mile. Continue your west course till you come up to the town, where you may anchor in 5 or 6 fathoms water. In running up from Sullivan's island stand no nearer to the southward than till you come into 3 fathoms, for fear of the spit, (a Middle ground that lies off to the N. E. and E. from Fort Johnson's point,) as far as Cummings's point, nor to the northward nearer than 3 or 4 fathoms.

After sailing from Sullivan's island, as before directed, you must, if bound through the S. W. channel, or by Fort Johnson's point, bring the point of land, on which the fort is, to bear S. S. W. and run directly for it, where you will have from 4 to 6 fathoms. When abreast of this point, direct your course about N. W. by W. in 6 and 7 fathoms, about one mile, or till you bring a point of woodland to the northward of the town of Cooper's river to bear N. N. W. when you may run N. W. by N. about 1 mile, which will carry you up to the town, and anchor as above directed.

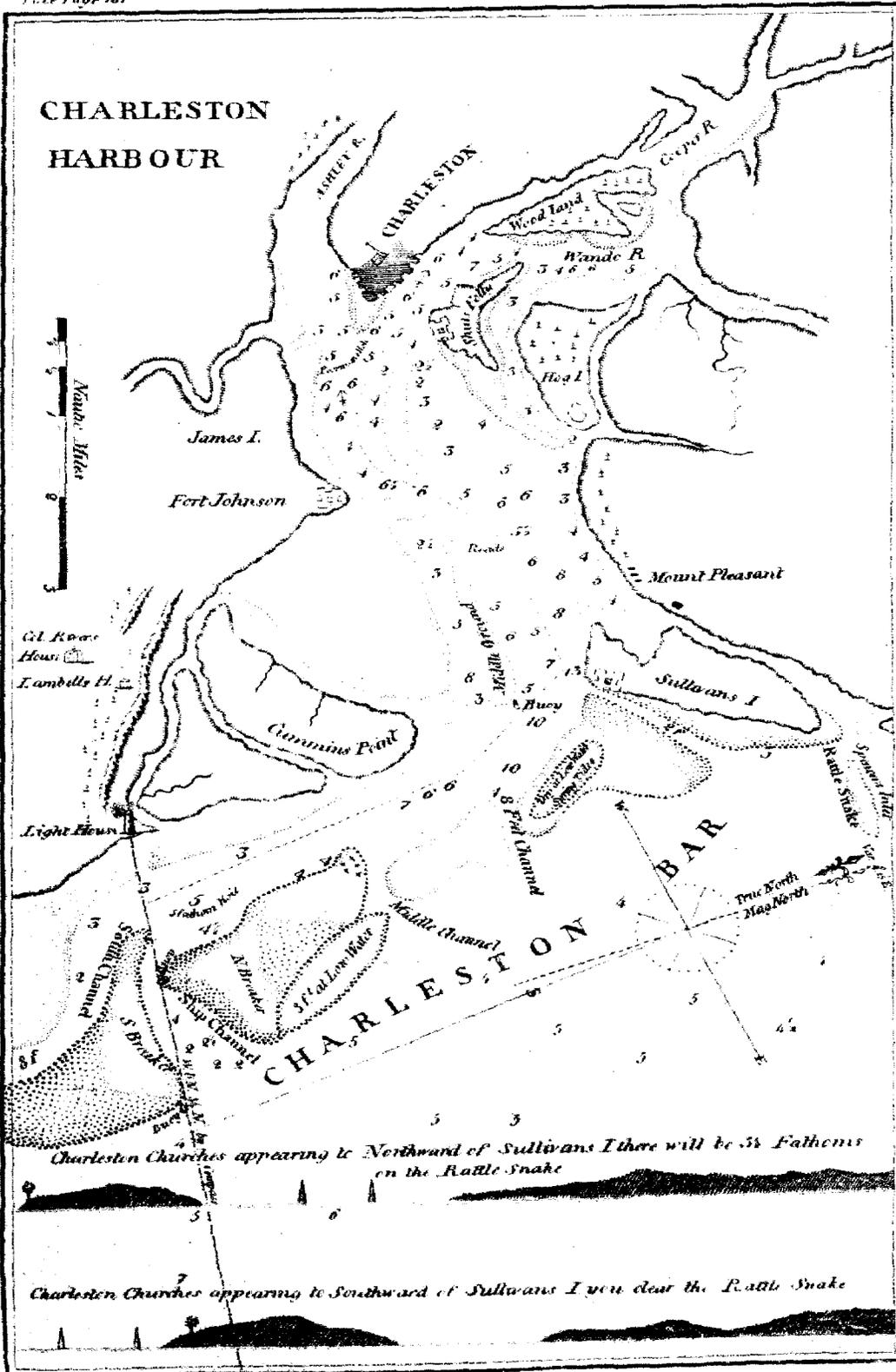
You may see Charleston light-house, in clear weather, in 10 fathoms water. The winds on the soundings govern the current.—Variation off the bar, $4^{\circ} 15'$ eastward. [See the Plate.]

NOTE.—As St. Michael's church steeple has been newly painted a very brilliant white, and can be seen 20 miles at sea, mariners are informed of the circumstance to prevent any mistake.

We will also give a hint to the owner of the wind-mill, on Cape Roman, which has de-

* Charleston Light-house contains a REVOLVING LIGHT—at the distance of 8 or 9 leagues, the time of darkness will be twice to that of light; as you approach it, the time of darkness will decrease, and that of light increase until you get within three leagues, when the light will not wholly disappear, but the greatest strength of light will be as one to forty-four to the least.

† The south breaker has a buoy on the east end, in 12 feet water.



ceived many Navigators and caused a destruction of their vessels, and remind him that as there is a curse denounced against him who "removeth his Neighbour's landmark." we presume (and hope) a double one will be his who wilfully holds out a false beacon to the mariner when approaching the coast.

Orders and regulations for the port of Charleston, (S. C.)

THE harbour master of the port shall keep an office at some convenient place, to which all persons having business with him, may at any time repair, between the rising and setting of the sun, and in some conspicuous part of said office he shall affix the regulations of the harbour, copies of which he shall cause to be furnished to each captain or commander of a vessel, immediately on his arrival.

No ship or vessel shall be allowed to haul into any dock or to a wharf, upon any pretence whatever, until her yards are top'd, jib and spunker booms rigged in, sprit sail yards fore and aft, and such anchors as are not in use, on the forecaste deck, or such other part of the vessel as not to obstruct other vessels passing her sides.

The harbour master shall have full power and authority, and he is hereby required to order and direct the anchoring and mooring of all vessels coming into port, as also to fix their proper births, and upon application to order any vessel in ballast, light, or taking in cargoes at any of the wharves, to slack their fast and give an inside birth to a loaded vessel; provided that at the time of the application there shall be no other birth vacant, or as suitable at the wharf in question or at the adjoining wharves—and that no loaded vessel be allowed more than ten days for the discharge of her cargo. It is further enjoined on the harbour master to take care that no vessel be permitted to remain at anchor in the river, within the distance of fifty fathoms, from the outermost vessel lying at any of the wharves.

If any Captain, commander, or owner of any vessel shall refuse to anchor, moor or slack his fasts as aforesaid, when required so to do by the harbour master, it shall be the duty of the said harbour-master immediately, and without delay, to procure the necessary aid and assistance to anchor, moor, or slack the fasts of said vessel, and the expense thereby incurred, to charge to the captain, commander, or owner thereof, and if the same be not paid within twenty four hours after their being furnished with the amount, such charge shall be recoverable in the Inferior City Court, at the next term thereafter, with full costs, without the right of imparlance.

The docks and channels of the harbour shall be under the direction of the harbour master, who is hereby required to prevent any ballast or rubbish, being thrown therein, and to keep the same open and free from obstruction; and every person or persons offending in the premises is and hereby made liable to be fined in the sum of twenty dollars for every such offence with costs, to be recovered in the Inferior City Court, without the right of imparlance: and the harbour master, as a compensation for his attendance to prosecute said suits, shall be entitled to receive one half of all the fines so recovered; the other half to go to the use of the city; and the said harbour master is hereby declared a good witness, in all cases, notwithstanding he may be the informer.

If any person or persons shall molest or attempt to obstruct the harbour master in the execution of the duties of his office; all and every such person or persons, shall, upon conviction in the Inferior City Court, be liable to be fined in the sum of 20 dollars, and all costs attending the suit.

The harbour master shall be amenable for all such losses as shall arise through his neglect, and upon his omitting to perform the respective duties assigned him by this or any other ordinance, he shall forfeit and pay for the use of the city, the sum of twenty dollars, for every such offence, upon conviction in the Inferior City Court, with costs, and shall be liable to be dismissed at any time, for any cause, or matter, which to the council, shall appear sufficient.

The harbour master shall take all lawful means to prevent negroes and other slaves being clandestinely or illegally carried away in any ship or vessel from this port; and to secure them in the work-house for the use of the owner, who shall pay a reward of ten dollars to the harbour-master, for every such negro or other slave so secured as aforesaid, and every constable or constables aiding and assisting in the taking and securing such negro, shall be entitled to receive from the owner aforesaid five dollars each; and in case of refusal on the part of the owner, the parties shall recover the same in the Inferior City Court, with full costs.

To prevent paupers and others, who are likely to become a charge and burthen to the community, from being brought into this city from any of the United States, or from any foreign country; that every master of a vessel arriving at the port of Charleston, shall, as soon as he has entered his vessel with the collector of the customs, deliver to the master of the said port of Charleston a perfect list or certificate under his hand, of the christian and surnames of all passengers, as well servants as others, brought in such ship or vessel, and their circumstances, so far as he knows, noting their places of nativity, or residence; and their occupation or profession, and whether he considers such passenger or passengers as

likely to become burthensome to the community, on pain of forfeiting the sum of ten dollars for every passenger whose name he shall omit to enter in such list or certificate, to be recovered in the Inferior City Court, in the same manner as all fines and forfeitures have heretofore been recoverable. And should it so happen that any passenger or passengers so brought in, is or are likely to become a burthen to the city; if such person or persons shall refuse to give security, or cannot procure sufficient security or securities to become bound for his saving the city from such charge; in such case the master of the vessel in which such person or persons came, shall and he is hereby obliged and required to send him, her, or them out of the city again within the space of three months next after their arrival, or otherwise to give security, to indemnify and keep the city free from all charge for the relief and support of such pauper or paupers, unless such person or persons was before an inhabitant of this state, or that some infirmity happened to him or her during the passage; and the harbour master of the port of Charleston is hereby required to notify to all masters of vessels entering this port the purport of the above clause, free of reward.

The harbour master shall have authority to appoint one or more deputies, to be approved of by the Intendant, who shall take the same oath of office as himself, and be subject for the same penalties for neglect of duty.

From Charleston Bar to *Port Royal.

FROM 5 fathoms water off Charleston bar to North Eddisto inlet, the course is S. W. by W. $\frac{1}{2}$ W. and the distance $5\frac{1}{2}$ leagues; this course will carry you clear of the shoals which lie off Stono inlet, which lie further off than any that are in your way to Eddisto. Stono inlet is about 2 leagues from the south channel of Charleston; between them lie two islands, viz. Morris island, on which the light-house stands, and the island called the Coffin island. With the light-house open of the Coffin island, you will go clear of the Stono shoals, in 6 fathoms water; but if you shut the light-house in with the Coffin island, you will not have more than $5\frac{1}{2}$ fathoms off Stono shoals; you will pass close to the breakers, and consequently be in danger; the breakers, unless the sea be smooth, shew where the shoal is. In Stono inlet there are 6 or 10 feet of water, at low water, but it was not much frequented until Charleston was blocked, in the year 1775.

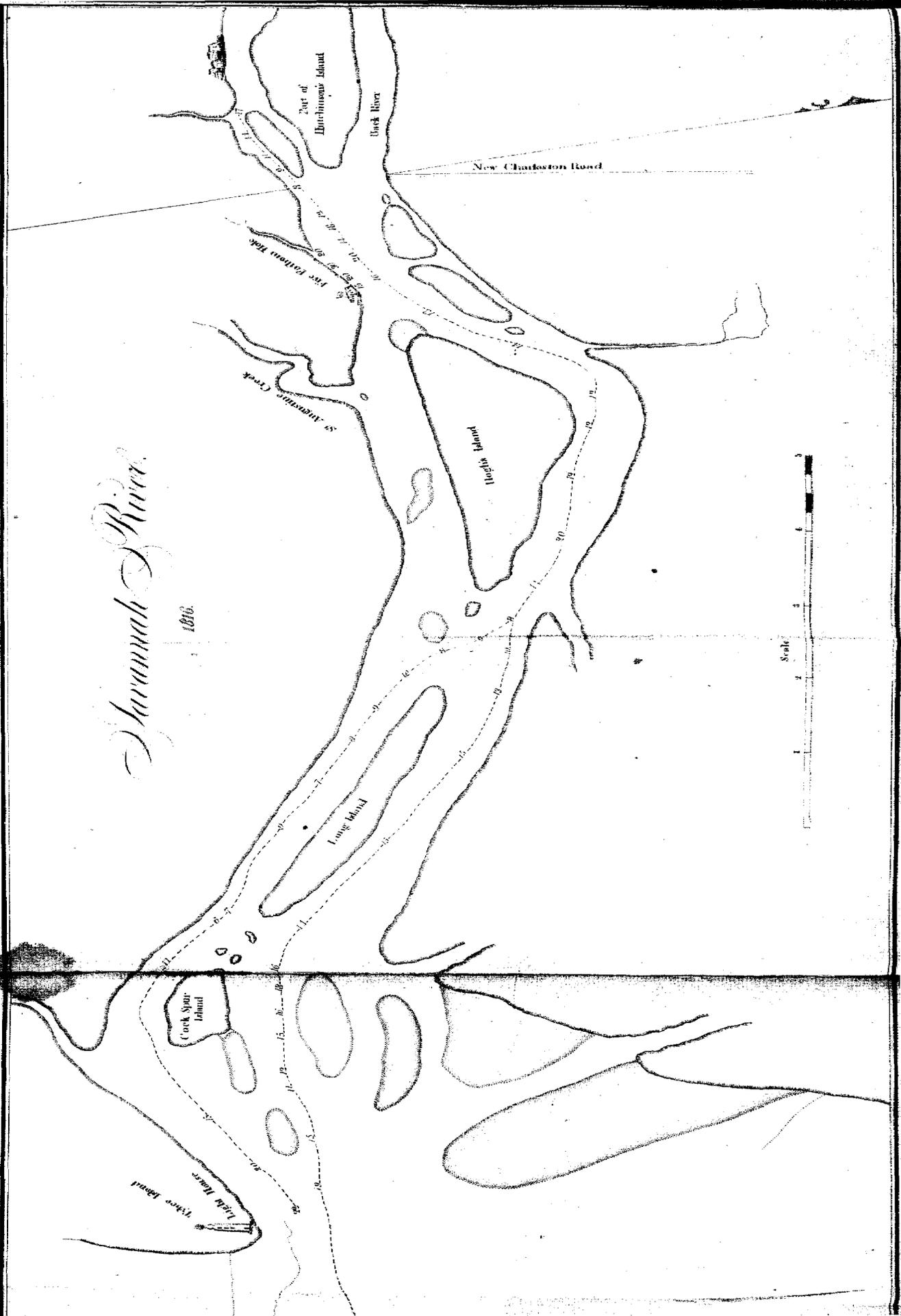
From Stono inlet to north Eddisto inlet, the course is S. W. by W. $\frac{1}{2}$ W. and the distance 11 miles; between them the soundings are regular, and the shoalings, when you are coming from the offing towards the shore, are very gradual; the bar off north Eddisto, and the shoals which are contiguous to it, lie off about 4 or 5 miles from the land. Close to the bar and shoals there are 3 and 4 fathoms water; on the bar, there are 9 or 10 feet at low water. South Eddisto is 3 leagues W. S. W. from North Eddisto. The shore of the islands, which lie between them, may be approached with your lead, without danger. The shoalings toward it are gradual.

If bound to the southward or northward, and obliged through stress of weather to make a harbour in North Eddisto, you must, when within about 5 miles of the land, open a tree (which resembles an umbrella) with the south point of the harbour and then steer in N. W. without any danger, and anchor in 6 fathoms water, on the northern side of the harbour. [*The tide here is very rapid.*] In the harbour 4 miles west from anchorage, you may get good water.

When you are coming from sea for Port Royal harbour, you should get into the latitude of St. Michael's head, which is $32^{\circ} 6' N.$ then steer west for the head, and when you come within 15 leagues of it, you will have from 20 to 25 fathoms water. Continue your west course until you make the land, which you will do, if the weather be clear, at a distance of 6 leagues in 12 fathoms water. The land hereabouts is generally low, but the trees are high. Port Royal entrance is known by a small grove of trees, which stand on the north side of it, and tower above all the other trees, like a high crowned hat; hence this grove is called the Hat of Port Royal. Continue to steer, as before, keeping your lead going until you get into 8 fathoms water, when you will be about 3 leagues from St. Michael's head. You may then steer a point to the southward of west, until

* Port Royal is 6 leagues N. E. $\frac{1}{4}$ E. from Tybee light house, at the entrance of Savannah river, and has a harbour sufficient to contain the largest fleet in the world.

Prepared for Allen's Coast Pilot.



Savannah River

1816.



New York: Published as the Act directed, by A. A. Knapp, 1816.

you get into 5 fathoms water; then steer more southerly, taking care not to bring St. Michael's head to the northward of N. W. by N. until you see the great north breaker, called Cole's Care, close to which there are 4 fathoms water; this shoal must be left on the starboard side. As you approach this breaker, from the northward, you will see another breaker to the southward, called Martin's Industry; between these two breakers lies the entrance of the channel into Port Royal harbour, which is about a mile wide. The mark to go clear of the north breaker is, a parcel of high trees which stand near the mouth of the river May, and appear like an island, kept just open of Elizabeth point. Your course through, between the two shoals, is W. $\frac{1}{2}$ N. or W. by N. In this channel there are not less than $3\frac{1}{2}$ or 4 fathoms, at low water. Continue to steer as aforesaid, between the two breakers, until you bring Phillip's point to bear N. N. W. then steer directly for it, and you will have, as you proceed, 9, 8, and 7 fathoms water. When you are abreast of Phillip's point, give it a small birth, and steer up N. by W. $\frac{1}{2}$ W. in 6 and 5 fathoms water; in the latter depth you may anchor in a very safe harbour.

There is also a channel between Martin's Industry and Gaskin bank, called the South channel, in which there are not less than 12 feet at low water. In order to go in through this channel, you must, when in 7 fathoms water, bring Hilton's head to bear N. W. by N. and then steer with an ebb tide N. W. and with a flood tide N. W. by N. until Phillip's point bears N. by W. $\frac{1}{2}$ W. You may then steer for the point, and proceed as before directed.

About $3\frac{1}{2}$ miles S. E. from Hilton's head, and 4 miles S. by E. from Phillip's point, lies the east end of the Joiner's bank; it thence extends W. N. W. about $2\frac{1}{2}$ miles, and has $3\frac{1}{2}$ fathoms on it at low water. Hilton's head is on the south side of the harbour, and is a higher bluff point of land than any thereabouts.

Tybee inlet lies 5 leagues S. W. $\frac{1}{2}$ W. from the entrance of Port Royal south channel; between them is Hilton's Head island; it is large, fertile, and well inhabited. From this island the Gaskin bank extends about 8 miles on the broadest part. You may proceed along this bank in 5 fathoms water.

Some, when bound to Port Royal, reckon it best to make the land about Tybee, because the light house makes that part of the coast distinguishable from any other part. Tybee inlet is the entrance of Savannah river. Ships which draw 14 or 15 feet water, may go in at Tybee, and proceed through land to Beaufort in Port Royal islands, and from Beaufort, vessels of 8 or 9 feet water may go through land to Charleston. From Charleston, vessels drawing 7 or 8 feet water, may go through land to the river Medway in Georgia, which lies 30 miles south of Savannah.

On this coast it is observed, that N. E. easterly, and S. E. winds cause higher tides than other winds, and also somewhat alter their course. At Port Royal entrance the tide flows on the change and full days of the moon, one quarter past 8 o'clock. About 6 leagues from the land, in 12 fathoms water, the flood sets strongly to the southward, and the ebb to the northward; further off from the shore there is no tide at all. Near to the entrance of the harbour there is a strong indraught, during the flood tide, and an out-set with an ebb tide.

From Charleston Bar to Tybee.

WHEN over the bar, in 8 fathoms water, the course is S. W. by S. distance 22 leagues. As you come near the latitude of Port Royal entrance, which is $32^{\circ} 8' N.$ be careful to avoid a very dangerous shoal, called Martin's Industry; it lies four leagues from the south side of the entrance of Port Royal, which is the north side of Hilton Head, the highest land in sight; come no nearer than 7 fathoms, keeping your lead going; and, in the night or thick weather, do not approach nearer than 10 fathoms; the tide of flood sets boldly in. When you get to the southward of Hilton Head, you will see the light-house which stands on the island of *Tybee.

* Tybee island lies at the mouth of Savannah river, to the southward of the bar. It is very pleasant, with a beautiful creek to the west of it, where a ship of any burthen may lie safe at anchor. A light-house stands on the island, 80 feet high, is 17 miles E. S. E. $\frac{1}{2}$ E from Savannah, and 6 leagues S. W. $\frac{1}{4}$ W. from Port Royal. Wassaw sound is formed by the southern end of this island.

Ships entering Savannah river must run till the beacon erected on Tybee bears on the light-house, and then they will cross the bar in the best water. [The beacon is a mast with a black cask on it.]

On Savannah bar there are 18 or 19 feet at low water. On the south breaker there are not more than 7 or 8 feet water; and, a mile and a quarter from the light it is bare at low tide. On the north breaker there is not less than 12 feet for the distance of a mile.

One and a quarter of a mile from the light you will begin to open the beacon to the southward of the light, when running in.

After getting into 4 fathoms water you will be over the bar, when you must haul up W. N. W. until the light-house bears S. S. W. then anchor.

The point of shoal which runs down from Cockspur island, and separates that channel from the ship channel, bears N. $\frac{1}{2}$ W. from the light, and has not more than 5 feet on it at low tide. When to the northward of this point, the light bearing S. S. E. you may anchor in 4 or 5 fathoms.

Vessels drawing not more than 8 or 9 feet may keep the light or island side on board, and run into Cockspur and anchor, as they cannot pass the upper end of the island until half flood, there being only 7 or 8 feet at low tide.

There are three bars, having from two to three fathoms, on the back of Tybee and Cabbage island; but they are never to be attempted but in absolute necessity.

Tybee creek has 11 feet through it at low water.

Wassaw has 10 feet on the bar, but it is too intricate for strangers. [See the Plate.]

Directions for Hogoheehet River.

Hosaba bar, at the mouth of the river Hogoheehet, has 18 feet water on it, to cross which, bring Green island to bear N. W. by W. steer in W. by N. till you deepen your water, then haul up N. W. by N. and you will soon get in 8 or 9 fathoms, when your eye and lead will be your best directions; at the extremity of the channel you will keep Hosaba nearest on board until nearly up with the lower part of Buzzard island, when the channel will be close under the starboard shore.

Green island (the seat of hospitality) is much higher land, has taller timber than the surrounding forests, and containing several hundred acres, covered with pine, which generally has a greenish appearance.

St. Catharine's Bar,

WHICH is difficult for strangers, lies one mile south of the north point of the island, has but $3\frac{1}{2}$ feet at low tide; channel not more than 200 yards wide, the shoals generally dry each side of the bar. It is better for vessels bound to Newport, Sunbury, or up these streams to enter at Sappello or Hosaba, and go the inland passage, which is not difficult.

Sappello Bar

HAS 19 feet at low tide, three-fourths of a mile in width. Running for this bar you will have, at the distance of 7 miles from the land, about 4 fathoms, deepening to 5, uneven bottom, until you approach the bar. To cross it you bring the south point of St. Catharine's to bear W. $\frac{1}{2}$ S. and (Black Beard) or the N. E. point of Sappello to bear W. by S. $\frac{1}{2}$ S. and run for it; should it be strength of flood, bring Black Beard to bear W. by S. and run for it; you will soon have 4 and 5 fathoms, close on board the breakers, each side good holding ground. When mid channel between the islands, in 7 fathoms water, bring the high point of Sappello on your larboard bow, and run up; should you expect a gale from the N. E. haul up and anchor about a mile from the south end of St. Catharine's, nearest to the island.

Between Sappello and Little St. Simon's lies Doboy bar, at the mouth of the Altamaha, having 15 feet on the bar and sufficiently wide to beat in; the north breaker has 6 feet water on it.

To cross this bar, bring a small island close under Sappello on with the main island, and run in for a clump of bushes on the south side: they cannot be seen but in clear weather.

After in 4 fathoms you will be over this bar, when you must haul up W. N. W. until the light-house bears S. S. W. then anchor. Bring the light-house to bear W. and run for it, keeping it on that bearing.

If in the night, and you are to the northward of Tybee, be careful of going nearer the Gaskin bank than 5 fathoms. In fresh winds, you take a pilot abreast of the light-house—in moderate weather, without the bar. In clear weather you may see the light-house at the distance of 12 miles.

Near the Gaskin bank and Martin's Industry, the flood runs strong into Port Royal, to which may be attributed the loss of so many vessels on these banks.

NOTE.—Sailing into Savannah you will observe the following marks and buoys, viz. a large buoy lies on the outer edge of the bar in the deepest water, having all the leading marks on the beacon and light-house in one, bearing W. $\frac{1}{2}$ N. distant 4 miles. Another buoy lies in the same direction, one mile within the bar; a third buoy lies one mile farther W. by N. from the second; a fourth buoy lies N. W. by W. from the third; after passing which there is safe anchorage for a large fleet, in 4 or 5 fathoms, at low water, the light-house bearing S. S. W.

The buoys lie and lead in the deepest water, having a channel half a mile to the northward, and one quarter of a mile to the southward of them (in the narrowest place) nearly the same depth of water, and there are 20 feet on the bar at lowest tides; you may sail either side of the buoys.

Forty miles south of Savannah lies Sunbury, a port of entry, at the head of St. Catharine's Sound, between Medway and Newport rivers, about 15 miles S. of Ogeechee river. There is a bar here, but the harbour is capacious and safe, and has water sufficient for ships of great burthen.

St. Helena Sound.

THE entrance of this sound lies between South Eddisto island and the northernmost Hunting island; it is about 2 leagues wide. This place is navigable by vessels of 7 or 8 feet water only; it is full of sand banks, many of which are dry at low water. Six rivers empty themselves into this sound, viz. South Eddisto, Ashappo, Cumbabaw, Chehaw, True-Blue, and Corsaw. These rivers are all navigable; some of them come 200 miles down the country, but few of them can be navigated by vessels of 6 feet water, for more than 33 or 40 miles from the sound. From the entrance of St. Helena Sound, along the Hunting islands, to the entrance of Port Royal, the course is S. W. $\frac{1}{2}$ S. and the distance about $5\frac{1}{2}$ leagues. The soundings are regular; you will have 5 or 6 fathoms water.

Tybee to St. Simons.

BRING Tybee light house to bear N. W. in 10 fathoms water, then steer S. by W. distance 14 leagues, to go clear of the shoal of St. Simons, which lies off St. Simons E. S. E. 4 leagues. There are 4 and 5 fathoms close to this shoal; to avoid which, come no nearer than 8 or 9 fathoms. The island of * St. Simons is on the north side of the sound or harbour of the same name, which lies in latitude $31^{\circ} 01'$ N. and on the south side of that harbour lies Jekyll island, on which are remarkable trees, appearing like umbrellas, and thence called the Umbrella Trees. The bar at the entrance of St. Simon's sound, lies nine miles from the Light. Bring the light to bear N. W. by W. $\frac{1}{2}$ W. will carry you over the bar.

The tide of flood sets S. S. W. and the ebb N. N. E. It flows at full and change, at St. Simon's bar, E. S. E. and W. N. W 7h. 30m.

Directions for St. Mary's and Amelia Bar.

SAILING into St. Mary's, the course by compass is N. W. $\frac{1}{2}$ N. leaving a

* A Light house is erected on the S. W. end of St. Simon's island, containing a fixed light. It is a stone edifice 50 feet high, the lamps 60 feet above the level of the sea.

buoy, on which is placed a black and white flag on either hand, it being in mid channel. On Cumberland Island is a white house, which shows a long distance at sea.

Vessels from the northward, after passing Jekyll island, which lies in lat. 31° , ought to keep in 7, 6, or 5 fathoms water, as weather and size of the vessel may admit. As you proceed towards the southern part of Cumberland you will open Dungeness House, which is about $1\frac{3}{4}$ miles distant from the south point of said island, and is the only conspicuous large building on this coast, and is hid by the trees when you are to the northward. Southward of this house there is a space of about two miles with no trees on it, which makes the south point of the island appear (at a distance) like an island of about two miles in length.

Proceeding to the southward and eastward, in said soundings, you will observe near the beach and above the sand, a conspicuous white beacon with a pole sixty feet high, with a small flag and a cask on top. This beacon being brought in with the windmill,* which is painted white, and stands among the first high cluster of trees: From the north part of the island of Amelia, the North Breaker head is then in a direct line between you and these objects, which will open and shut in, in half the length of a ship, being nearly three miles apart; and by bringing the beacon open to the northward of the mill, and nearly on with a thick round clump of trees, which appear to be near to and north of the mill, will bring you on with the South Breaker head. The beacon between this clump and the mill, is the leading mark to round the North Breaker head, or in the middle channel, the mill bearing by compass nearly $W. \frac{1}{2} N.$

A white buoy is at present laid to the eastward of both breaker heads, about middle channel, which you may go either side of. The inner, or westernmost buoy, lies about a ship's length from the North Breaker head. The instant you round the North Breaker head, a $N. W. by N. \frac{1}{2} N.$ course by compass, and about three miles distance, will bring you up with the buoy on the Spit of Amelia Ground, which you must leave on your larboard, when you will open the points of Amelia and Cumberland, bearing nearly $W. by N.$ In bearing in from the North Breaker head, with a head wind, always observe the deepest water is close to the breakers. Full sea at St. Mary's bar on full and change at half past 7 o'clock—slack water at 8. Average tides 7 feet.

St. Mary's to St. John's.

The course is $S. by E.$ distance 9 leagues to St. John's; in making this place when bound into St. Augustine's, there is a round high bluff, at the south side of the river known by the name of the General's Mount; the small craft running in from Amelia to St. Augustine's generally make it, and take their departure. On the north side of the harbour is Talbot island, in length 5 miles; it is low and full of trees, lying north and south; there are 16 feet water on the bar at high water. The latitude is $30^{\circ} 32' N.$ At full and change it flows $S. E. by S.$ and $N. W. by N.$ 9 h. 45 min.

St. John's to the Bay of St. Augustine.

WHEN in 9 fathoms water, off the Bar of St. John's, the course is $S. S. E.$ distance 11 leagues. The northernmost land of the bay is called Point Cartel. When you are as far to the southward as this point, you will see the island Anastatia, in length 18 miles, and on the south side of the bay; the north side of which has a high white tower, like a light-house, where a look-out is kept. When a vessel appears in sight, a signal is made to the town of St. Augustine, by hoisting their colours and firing a gun; if the vessel appears to the northward of the bay, and is a three-mast vessel, they hoist an ensign, and hang out a pole

* The beacon and windmill have both been taken down, and a house erected near the site of the mill.

in the form of a triangle, with three balls on the north side of the tower ; if to the south, the balls are hung out on the south side of the tower ; if a two-mast vessel, two balls and a Jack hoisted ; if a sloop one ball and a pendant ; for a fleet they fire five guns and an ensign hoisted. The bar of St. Augustine has no more than 10 feet water on it at high water, spring tides, and at low water 5 feet. There is a swash to the northward of the bar, with 11 and 12 feet water ; but the sand shifting often, and the passage being so narrow and crooked, the pilots seldom attempt it. The latitude of this signal tower is $29^{\circ} 58' N.$ It flows, at full and change S. E. by S. and N. W. by N. 9 h. 45 min. The variation was 4 deg. W. anno 1773.

To anchor in the Bay of St. Augustine. Observations on the Weather, and on the Gulf Stream.

BRING the signal tower to bear S. W. $\frac{1}{2}$ W. and the fort which stands to the northward of the tower W. $\frac{1}{2}$ N. the new barracks will then be open of the northernmost part of Anastasia island ; then bring up and you will have 10 fathoms water, and good holding ground : the northernmost land in sight will bear N. W. by N. the southernmost land S. S. E. and you will be near the middle of the bay, it being immaterial which way you cast your ship. But should you be too far to the northward or southward, there would be danger in casting the wrong way, and more so on the tide of flood, which sets strongly into the bay. If it should be likely to blow from the eastward, do not attempt to get under way whilst the tide of flood runs.

From the 1st of November to the last of February, the hardest gales prevail that blow on this coast ; and in general from the N. N. E. to the S. S. E. the wind any way easterly comes on very suddenly to a gale during the season above mentioned ; and these gales give but very little warning. An experienced navigator says, " In the year 1777, I was at anchor in St. Augustine Bay, when it came on to blow at E. N. E. and in 15 minutes time I was obliged to slip, and had we not carried sail to the utmost, we should not have cleared the land to the southward. N. B. When the wind backs against the sun, with a small rain, you will perceive the sea to rise before the wind comes ; then prepare for a gale, which in general will last 50 or 60 hours. If you should be obliged to cut or slip, carry all the sail you possibly can, to get an offing before it increases, so as to put you past carrying any sail, which is always the case ; and observe that the flood tide setting to the southward will be of no service to you farther out than 12 fathoms water, when you will be in the southern current until you get into 46 fathoms which is about 15 leagues from the land. Then you are in the Gulf Stream, issuing out of the Gulf of Florida, and which runs strongly all along the edge of soundings about N. N. E. as far to the northward as the latitude $35^{\circ} 15'$. Then it sets more easterly, or about N. E. by N. as far as the latitude 37° . from thence as far as the Capes of Delaware or Philadelphia, in latitude $38^{\circ} 50'$, its direction is about E. N. E. and from thence, in the latitude of $38^{\circ} 57' N.$ it sets away nearly east."

Directions for making a speedy passage from St. Augustine to New-York.

FROM the Bay of St. Augustine, which lies in lat. $29^{\circ} 51' N.$ steering N. E. will run you into the Gulf Stream, out of soundings ; then steer N. E. by N. until you get into the latitude of Cape Hatteras, which is in $35^{\circ} 14' N.$ then you may haul up more northerly half a point, till you get on soundings in or near the latitude of the capes of Virginia. When in 18 or 20 fathoms, and near that latitude steer N. E. by E. 78 leagues, and look out for the highland of Neversink, which lies in lat. $40^{\circ} 28' N.$ and very remarkable, being the highest land on either side of the entrance of the harbour of New-York. When you have nearly made the distance before mentioned, be careful not to run in the night or thick weather ; and come no nearer than 12 or 14 fathoms. To come to in the

Bay of New-York, bring the light-house W. by N. or W. N. W. in 10 fathoms, and the southernmost part of the highland of Neversink S. W. by S.

NOTE.—Along the southern coast of America, you will find no tide farther out from the shore than 10 or 12 fathoms water, from that depth until the edge of soundings, you will have a current setting to the southward, at the rate of one mile per hour; when out of soundings, you will have the Gulf Stream setting to the N. E. quarter, and the farther you get to the northward, it sets more easterly, but not so strong as before mentioned; and when you get to the northward of 39° it sets about east.

The Setting of the Tide along shore, from New-York to St. Augustine.

	Flood.	Ebb.
From the west end of Long Island to Cape May - - -	W. by S.	E. by N.
From Cape Henlopen to Cape Charles - - - - -	S. by W.	N. by E.
From Cape Charles to Cape Hatteras - - - - -	S. S. W.	N. N. E.
From Cape Hatteras to Cape Lookout - - - - -	S. W. by W.	N. E. by E.
From Cape Lookout to Cape Fear - - - - -	S. W. by W.	N. E. by E.
From Cape Fear to Cape Roman - - - - -	W. S. W.	E. N. E.
From Cape Roman to Charleston - - - - -	W. S. W.	E. N. E.
From Charleston to Tybee - - - - -	W. S. W.	E. N. E.
From Tybee to St. Simon's - - - - -	S. S. W.	N. N. E.
From St. Simon's to St. John's - - - - -	S. by W.	N. by E.
From St. John's to the Bay of St. Augustine - - -	South.	North.

Winds and weather on the coast of South-Carolina.

WHEN the wind blows hard in the N. E. quarter, without rain, it commonly continues to blow violent for some time, perhaps 3 or 4 days; but if such winds are attended with rain, they generally shift to the E.—E. S. E. and S. E.

S. E. winds blow right in on the coast, but they seldom blow dry, or continue long; in 6, 8, or 10 hours after their commencement, the sky begins to look dirty which soon produces rain. When it comes to blow and rain very hard, you may be sure that the wind will fly round to the N. W. quarter, and blow very hard for 20 or 30 hours, with a clear sky.

N. W. winds are always attended with clear weather. They sometimes blow very hard, but seldom do so longer than 30 hours.

The most lasting winds are those which blow from the S. S. W. and W. N. W. and from the N. to the E. N. E. When the wind is in any of these quarters, the weather is the most settled.

Thunder gusts are very common on this coast in the summer time; they always come from the N. W. quarter, and are sometimes so heavy that no canvas can withstand their fury; they come on so suddenly, that the greatest precautions are necessary to guard against the effects of their violence.

From Tybee inlet to St. Simon's head, the course is S. by W. $\frac{1}{2}$ W. and the distance 16 leagues; and from Tybee inlet to the bar at the entrance of St. Simon the course is S. by W. and the distance 19 leagues. Between them are the following sounds: viz. Wassaw, Hosaba, St. Catharine's, Capello, and Little Simon's. In proceeding from Tybee for St. Simon's sound, you will have from 4 to 7 fathoms water; the shore of the several islands which lie between them is flat, and the shoalings as you approach are gradual.

St. Simon's bar lies 9 or 10 miles from St. Simon's fort; the fort is on the S. end of St. Simon's island, and by its white appearance, makes this place remarkable. About a mile and a half to the southward of the fort is the south end of Jekyll island, which is easily known by the trees appearing as an umbrella, as before described. In order to sail over the bar, bring a large round tree which stands to the westward of the sound, right on with the middle of the opening between St. Simon's and Jekyll islands. On the bar you will have, at three quarters flood about 19 feet water. The width of the bar is about three quarters of a mile; the extremities of the sands, on each side, generally show themselves by the breakers. The north break head and the south break head bear of each other S. E. by E. and N. W. by W. Come no nearer to the north break head

than half a cable's length. The ground on the bar is hard, but without and within the bar it is soft. When the south end of Jekyll island bears S. W. $\frac{1}{2}$ W. the N. E. point of St. Simon's island, called Simon's head, N. by W. and the round tree, which stands to the westward of the sound, is on with the middle of the opening between Jekyll island and that of St. Simon, you are on the middle of the bar.

When you come into $4\frac{1}{2}$ fathoms water, you are within the bar, and should then steer W. by N. $\frac{1}{2}$ N. There is a middle ground in the fair way, but you need not fear it, because there are always 3 feet more water on it than on the bar. Give the fort, in passing it, a birth of about a cable and a half's length, and anchor with the fort E. by S. in 3 fathoms water; you will then be about three quarters of a mile from the fort.

The tide flows on the change and full days of the moon, as follows, namely, in the sound, 9 o'clock; on the bar, half past 7 o'clock; and in the offing, 3 quarters past 6 o'clock.

General Instructions for making the Bermuda Islands.

	Latitude.	Longitude.
Saint George's Town, at the eastern end	32° 22' N.	64° 33'
Wreck Hill, at the western end	32° 15' N.	64° 50'

High water, full and change, at St. George's, half past 8. Common tides rise about 4 feet; but on the springs, or in gales of wind, frequently to 7 feet. The floods in the offing set to the N. E. and ebbs to the S. W.; but near the shore they run in various directions.

THESE islands being surrounded with innumerable shoals, much precaution is necessary in approaching them. The principal dangers lie to the westward and northward, and extend, from the land, between three and five leagues, in a due west line, from their southwestern point (round northerly) to a N. N. E. one, from David's Head, their eastern extreme. The remainder of the coast, forming their southern and eastern boundary, may be approached in every part within a mile, and in several places to less than half that distance.

On account of the prevalence of westerly winds in the Atlantic, it has become the general practice for all vessels bound to the Bermudas to make the land from the westward, by getting into their latitude about the 68th degree of longitude, and then steering an east course until they become visible.

The latitude of 32° 8' N. being two miles to the southward of every danger, seems best adapted in fine clear weather for this purpose, and will bring you in sight of Wreck Hill, which being of a conic form, and having a volcanic appearance, is the more remarkable. The moment this hill becomes shut in with the other lands, or is no longer distinguishable, you will have passed the only danger to be apprehended off the southern part of these islands, called the S. W. breakers (which do not, however, lie more than $1\frac{1}{2}$ mile from the land,) and may then immediately close with and steer along the south-eastern shore, within a mile, till you have got the length of Castle Harbour, or brought David's Head to bear about N. by E. where you must wait to receive your pilot, taking care during that time not to be drifted to leeward, as the currents generally set to the eastward.

Should you meet with a contrary wind, or the weather be extremely hazy, before you have got sight of the land, it will be prudent in the night not to stand to the northward of 32° 4' or 5'; and if the wind should be inclining to the southward, I would recommend not beyond 32°.

If bound to the Bermudas from England, or from any part of Europe, I should recommend a direct course to be steered as long as the winds permitted; but the moment they become contrary, to get to the southward into the Trades, and then run down the remaining longitude, taking care to haul to the northward in sufficient time to reach the latitude of 32° 8' about the 68° of longitude, and then proceed as above described: but should fair winds continue the whole passage, the land may be made with equal safety from the eastward, by steering for them in the latitude of 32° 18' N. which is two miles to the southward of David's Head, their south-eastern extreme; and off which head there is no dan-

ger beyond half a mile, care being taken not to come to the northward of that latitude until you have brought the Head to bear W. S. W. on which bearing it may be approached with safety till within one mile thereof, or till you receive your pilot.

In the course of making the land from the eastward, should the wind become contrary, or the weather prove dark, hazy, and tempestuous, come not during the night to the northward of 32° or $32^{\circ} 6'$; in which latitude, if you should be found to have run past the islands, you must proceed as before described, in making them from the westward.

As the soundings do not extend more than two miles from the land on the southern side of the islands, a correct latitude and a good look-out, together with a strict attention to these instructions, is absolutely necessary.

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Remarks on the Gulf Stream, and the means of ascertaining when in its vicinity.

THE Gulf Stream passes close to the extreme S. E. point of Cape Hatteras Shoals, and 13 miles from the land; the soundings are from 12 fathoms on the outer part of the shoal, to 60 fathoms close on the edge of the stream.

The nature of that immense current, which continually sets from the Gulfs of Mexico and Florida, to the northward and north-eastward, along the greater part of the Navigation described in this work, is already well understood; and, though we have noticed it, as to its effects, in several parts of the preceding directions, we yet deem that an unbroken view of it, in its whole course from the Gulf to the north-eastward, may still be acceptable; and this we shall attempt in the present Edition.

The Stream from latitude 26° to 28° generally sets nearly N. by E.; from 28° to about 31° it appears to run N. N. E. inclining a little in the direction of the coast, rather westerly: it thence suddenly turns to N. E. by E. or a little more easterly, to latitude 35° , or about the parallel of Cape Hatteras.

From off Cape Hatteras its direction is E. by N. or a little more northerly, to longitude 70° , then east, rather southerly; and thence, diminishing in strength, it falls away to the E. S. E.

It has been stated, generally, by writers of ability, from the information of American coasters, that the northern edge of the Stream extends to the latitude of $41^{\circ} 20'$, or $41^{\circ} 30'$, in the meridian of the Isle of Sable; but this assertion has been controverted by others, who have averred, that its northern edge never ascends beyond the parallel of 40° , and that it does not always border on the shoals of Nantucket. We think the former correct.

It is, however, to be considered that a North, N. E. or East wind forces the stream towards the coast, contracts its breadth, and thus increases its rapidity. On the contrary, S. W. West, and N. W. winds force the stream farther into the ocean, and diminishes its strength. It is clear, then, that the stream fluctuates in its direction and force, according to circumstances; and no absolute rule can be given for ascertaining its more ordinary boundaries: it therefore follows, that a description of the indications, by which it may be known, is of the more importance.

These are the appearance and the temperature of the water. The stream in its lower latitudes and usual course in fair water, where it flows uninterruptedly, may be known by its smooth and clear blue surface; for, without the line formed by a ripple on its edge, the water, in some places, appears like boiling water of a blue colour; and, in other places, it foams like the waters of a cataract, even in dead calms, and in places which are fathomless.

On the outer edge of the stream, especially in fair weather, there are great riplings, which are very perceptible; and, it has been observed that, within it, the water does not sparkle in the night. The appearance of the sea-weed, called gulf-weed, by day, is an indication of the edge of the stream.

Besides the effect which different winds have upon the Florida Stream, it is subject to another cause that also directs it towards or from the coast; and that is, the moon; which, according to her position, has different effects upon it,

not, however, in equal power with those of the wind : but the disposition of the stream is increased to its extreme, if the effects both of the winds and moon are combined ; for, at this time, the ocean rising highest, this regulates the flood and ebb, and divides them in proportionate times ; consequently, it directs and increases them with the assistance of easterly moons and winds to the west, and with that of westerly moons and winds to the east ; so that the west and east shores are at times deprived of, and at other times overflowed by tides, occasioned by these vicissitudes.

The boisterous East, N. E. and North winds, which affect the Gulf Stream, generally begin in September, and continue while the sun is in the south until March ; when, if the moon happens just at the time to be on the full or change, they commonly end with a hurricane.

From what has been said, it is clear that the eddies about the edges of the stream must vary according to the circumstances above explained. Along these edges, but more particularly along the outer edge, there is generally a current running in a contrary direction, which is accelerated by the wind in proportion to its strength, blowing contrary to the stream, and retarded, or perhaps altogether obstructed, by the wind blowing in the direction of the stream. In the latter case, the limits of the stream will be extended.

In the winter, when the cold upon the land is most intense, which is generally between December and March, heavy and continued gales very frequently prevail, which commonly proceed from between the North and West across the course of the Gulf Stream, from Cape Hatteras until past George's Bank, and bend its direction more to the eastward ; being aided, at the same time, by the discharge of the great bays and rivers, increased by the force of the wind blowing down them, and the constant supply of stream that passes along the coast of the Carolinas, the whole produces so strong a current to the eastward, as to render it impossible for a ship to approach the coast until a change of wind commences.

During the prevalence of a southerly or easterly wind, which is not so common here, it has been found that the current is forced close to, and in some parts upon, the edge of soundings ; from a scientific nautical gentleman, we received the following, viz. while off Cape Lookout, 17 fathoms water, he had a strong current from the southward, owing entirely to the Gulf current. This proves the Gulf governed entirely by winds. Being thus pent in between the wind and the shoal grounds near the shore, the breadth is greatly diminished, and the velocity proportionably increased. This circumstance has been, in particular, observed from about the longitude of Block Island, along the edge of Nantucket shoals, thence beyond George's Bank ; and also, along the coast of Georgia, and part of South Carolina. In the first place, that the southerly winds forced the current to the edge of soundings, where it then ran from $1\frac{1}{2}$ to 2 knots ; and, in the latter place, that the easterly wind forced the current upon soundings. With West and N. W. winds, the stream would be removed some leagues farther off.

These remarks are sufficient to show the uncertainty of the boundaries or edges of the stream. These eddies, on the inner edge, are inconsiderable ; but, on the outer one, in fine weather, they are strong, and of considerable extent.

Another indication of the Stream is, the temperature of its water, which is considerably warmer than the water on either side of it. By an ingenious work, entitled, " THERMOMETRICAL NAVIGATION," written by Mr. Jon. Williams, and published at Philadelphia, in 1799, we are informed that, *Commodore Truxton*, has often ascertained the velocity of the Gulf Stream, to the northward of Cape Hatteras, and found it to be seldom less than one knot, and never more than two knots, an hour. The temperature of the air and water without the Stream was generally about the same ; that is, the difference seldom exceeded 2 or 3 degrees ; the air being sometimes the warmest ; at other times the water.

This gentleman has observed, " In the stream the water is much warmer than the air ; indeed I have known it 10 degrees warmer ; but, so soon as you get within the stream, (that is between it and the coast,) the water becomes colder than

the air ; and the more as you get on soundings and approach the shore.* If mariners, who have not the opportunity of determining their longitude by celestial observations, will only *carry with them a good thermometer*, and try the temperature of the water, and compare it with that of the air every two hours, they may always know when they come into, or go out of, the Gulf Stream. Indeed I have always made a practice, when at sea, of comparing the temperature of the air and water daily, and often, very frequently during the day throughout my voyage ; whereby I immediately discovered any thing of a current that way going, and afterwards found its strength and direction by observations for the latitude and longitude. It is of the utmost consequence, in making a passage to and from Europe, to be acquainted with this Gulf Stream ; as, by keeping in it, when bound eastward, you shorten your voyage ; and, by avoiding it, when returning to the westward, you facilitate it inconceivably ; so much so, that I have frequently, when bound from Europe to America, spoke European ships, unacquainted with the strength and extent of it, off the banks of Newfoundland, and been in port a very considerable time before them, by keeping out of the stream, whereas, they lengthened their passage by keeping in it. The general course of the Gulf Stream being marked on the chart, I would advise those who make the northern passage from Europe, never to come nearer the inner line of it, by choice, than 10 or 15 leagues : and then the probability will be, that their passage will be assisted by the help of a counter current, which often runs within it. In coming off a voyage from the southward, be sure to steer N. W. when approaching the stream, if the wind will permit you ; and continue that course till you are within it, which may be easily known by the temperature of the water, as before mentioned. I have always considered it of the utmost consequence, when bound in, to cross the stream as speedily as possible, lest I should be visited by calms or adverse winds, and by those means drove far out of my way, which would prolong the voyage considerably, especially in the winter season.

By the advantage of knowing how near to the coast a ship may venture, and how to distinguish the Gulf Stream from the water between it and the coast, we can be sure of a favourable current either way, and a small vessel might make a short voyage from Halifax to Georgia, which is thought by some a longer one than to Europe.—Suppose you had the wind a-head all the way ; take your departure, and stand for the stream ; so soon as you find the water to increase in heat, about half as much as you know it would when in the stream, heave about and stand for the coast ; you will infallibly discover the edge of soundings by the cooling of the water ; then stand off again, and so on to the end of the voyage ; when it is almost certain, that the distance would be run in a shorter time than if there were no stream ; for you would have a favourable inside or eddy current. On the return passage, take your departure, and run off till you get into the warmest water, which will be the middle of the stream, and take the advantage of its current.

The following fact may serve to illustrate the propriety of these directions. In June, 1798, the mail-packet, for Charleston, had 25 days passage in going, but returned in 7. The captain accounted for this by having calms, or very light airs, and a northerly current. This was the true cause. He was in the middle of the stream, where there generally are calms or light winds ; the edges, only which come in contract with colder regions, being tempestuous. After being in the latitude of Cape Hatteras, he found himself in that of Cape Henry, (37 leagues to the northward.) The vessel, however, arrived at last ; and, on the return voyage, the captain steered the same course back again, and, with the same light airs,

* By the journals of Capt. W. Billings, of Philadelphia, it appears that, in June, 1791, the water on the coast of America was at the temperature of 61°, and in the Gulf-Stream at 77°.—By those of Mr. J. Williams it appears that, in November, 1789, the water on the coast was 47°, and in the Gulf-Stream at 70°, viz.

1791, June, Coast 61°	1789, November, Coast 47°	} Coast 14°
Stream 77	Stream 70 June and Nov.	

Stream warmer 16

Stream warmer 23

The difference of heat is, therefore, greater in winter than in summer. See the concluding observation hereafter.

he performed the voyage in seven days. Had this captain known the use of the thermometer, need he to have been much longer in going than in coming?

It appears also, by the work above quoted, that the thermometer is not only useful for ascertaining the current of the Gulf Stream, but that it is likewise advantageous in discovering the approach to soundings from deep water.

A vessel on her voyage from Marblehead to Havanna, after getting into lat. $23^{\circ} 56'$ N. was set by the gulf so far as lat. $32^{\circ} 50'$ N. and compelled to go into Charleston.

In June, 1791, Captain W. Billings, of Philadelphia, in latitude 39 deg. longitude 56 deg. abreast of the banks of Newfoundland, found that the Mercury in the thermometer fell 10 deg. It was near the same place that a similar observation was made by Dr. Franklin, in November 1776, and another by Mr. Williams, in November, 1789, who has observed, that, "By the coincidence of these three journals at so great a distance of time, and without any connexion with each other, this important fact seems to be established. *A Navigator may discover his approach towards objects of danger, when he is at such a distance as to be able easily to avoid them, by attentively examining the temperature of the sea; the water over banks and shoals being colder than that of the deep ocean.*"

At the edge of the grand bank of Newfoundland, the water has been found 5 degrees colder than the deep ocean to the eastward. The highest part of the bank is 10 deg. colder still, or 15 deg. colder than the ocean eastward.

On the coast of New-England, near Cape Cod,* the water, out of soundings, is 8 deg. or 10 deg. warmer than in soundings; and in the stream it is about 8 deg. warmer still; so that, in coming from the eastward, a fall of 8 deg. will indicate your leaving the stream, and a farther fall of 8 deg. will indicate your being on soundings.

On the coast, from Cape Henlopen to Cape Henry, the water out of soundings, is 5 deg. warmer than in soundings; and in the stream about 5 deg. warmer still; so that, in coming from the eastward, a fall of 5 deg. will indicate your leaving the stream, and a farther fall of 5 deg. will give notice of soundings.

Mr. Williams recommends to seamen to take three thermometers. "Let them," he says, "be kept in one place some days previous to your sailing, in order to try their uniformity. The plate should be of ivory or metal, for wood will swell at sea, and, as the glass tube will not yield, it is from this reason very liable to break; bell-metal is the best. Let the instrument be fixed in a square metal box, the bottom of which, as high as the mark 30° should be water tight, so that, in examining the degree of heat, the ball may be kept in the water; the remainder of the length should be open in front, with only two or three cross-bars to ward off any accidental blow, like the thermometer used by brewers. Fix one instrument in some part of the ship, in the shade, and in open air, but as much out of the wind and in as dry a place as possible. The after part of one of the after stanchions, under the quarter rail, may answer, if no better place can be found.

Let the second instrument be neatly slung, with a sufficiency of line to allow it tow in the dead water of the wake.

Put the other away safely, to be ready to supply the place of either of the others, in case of accident.

REFLOWING CURRENTS, &c.—On each side of the Gulf Stream, as before noticed, there is a counter current setting in a contrary direction. In the Gulf of Florida, between the stream and the coast, a smooth eddy commonly takes its current south-westerly, in an opposite direction to that of the main stream; and there is, even in its higher latitudes, a reflow on either side.

It has been found that, when Cape Henry (the south point of the Chesapeake) bore N. W. 160 leagues distant, a current was setting to the southward at the rate of 10 or 12 miles per day, which so continued until Cape Henry bore W. N. W. 89 or 90 leagues; the current was then found setting to the N. E. at the rate of 33 or 34 miles per day, which continued until within 32 or 30 leagues of

* The bank from Cape Cod extends almost as far as Cape Sable, where it joins the banks of Nova Scotia, deepening gradually from 20 to 50 or 55 fathoms, which depth there is in latitude 43° . In crossing the bank between lat. $40^{\circ} 41'$ and lat. 43° the bottom is very remarkable; on the outside it is fine sand, shoaling gradually for several leagues; on the middle of the bank, it is coarse sand or shingle, with pebble stones; on the inside, it is muddy, with pieces of shells, and deepens suddenly from 45 or 48 to 150 or 160 fathoms.

the land; then a current set to the southward and westward at the rate of 10 or 15 miles per day, to within 12 or 15 miles of the land. This current, which is considered as the eddy of the Gulf Stream, sets more or less to the S. W. according to the figure of the coast.

It has also been observed by others, that a southern and western current constantly sets in high latitudes between the Gulf Stream and coast; more particularly in soundings, at the rate of half a mile an hour, or more, according to the wind.

An experienced officer of the navy, before quoted, has said that, "In all the observations I made during 5 years cruising on the American coast, I never found this eastern current to the southward of latitude 36° , and only once (the above-mentioned time,) so far; it generally prevailing between the latitudes of 37° and 40° , from the longitude of 60° to that of 69° . And I have often, about the latitude of 36° or 37° , and about the above longitude, found a strong current to the south and S. W. Therefore, ships from Europe, bound to America, should endeavour to make the passage either to the southward of latitude 37° , or to the northward of latitude 40° ; that is to say, when as far, or to the westward of the Banks of Newfoundland, they should as much as possible avoid beating against the wind to the westward, between the latitudes of 37° and 40°

Upon soundings, along the coasts of Georgia, Carolina, Virginia, New-Jersey, and New-York, the current runs in general parallel to the shore; and is in general, influenced by the wind, which mostly prevails from between the south and west, producing a slow current of about one or a half knot to the N. E. but when the N. and east winds prevail, the current along shore to the S. W. will frequently run two knots; on which the pilots of this coast remark, that the south and S. W. currents, though they but seldom happen, yet they are always stronger than those to the northward, which are more frequent. It is probable the tides may have some influence on these currents, particularly near the entry of the great bays and inlets. The flood on this coast comes from the N. E. In the months of April and May I have observed, on crossing the Gulf Stream, in the latitude of Cape Henry, that, when near the inside of the stream, the water begins to colour of a deeper green; and thence to the edge of soundings, there is a strong current to the eastward. The colour of the water, from green, turns to muddy, when on soundings, the current still continuing until within the influence of the tide; this eastern current is, no doubt, occasioned by the discharge of water out of the Chesapeake, by the floods from the snow melting in the country; and it prevails, in some degree, throughout the year, but its effect is greatest at this time. It is probable that a similar current prevails off the mouth of the Delaware.

Round the east end of Long Island, and thence to the eastward round Nantucket shoals, across George's Bank, to Cape Sable, a strong tide runs; the flood setting to the north and west, in order to fill up the bays, rivers, and inlets, and the ebb the contrary. The tides that set across George's Bank into the bay of Fundy are very much influenced by the winds, particularly if, after a strong S. or S. E. wind, it should suddenly change to W. or N. W. (circumstances that often happen;) ships will then find themselves drifted by the outset 50 or 60 miles in the 24 hours, or more, to the S. E. The indraught is also great with S. or S. E. winds, which ought to be paid particular attention to.

Upon the Nova Scotia coast the currents run parallel to the shore, but are more frequent from the eastward than from the westward, particularly in the spring; the southerly winds force them upon the shore by the water running in to fill up the bays and inlets; and the N. and N. W. winds have the same effect in forcing them off the shore. A regular tide here runs along shore; the flood from E. N. E.

We shall conclude this section with the observations on the Gulf Stream, &c. by Sir Charles Blagden, M. D. and F. R. S. extracted from the philosophical transactions.

"During a voyage to America, in the spring of the year 1776, I used frequently to examine the heat of sea-water newly drawn, in order to compare it with that of the air. We made our passage far to the southward. In this situation, the greatest heat of the water, which I observed, was such as raised the quick-silver in Fahrenheit's thermometer, to $77\frac{1}{2}$ degrees. This happened twice; the

first time on the 10th of April, in latitude $21^{\circ} 10'$ N. and longitude, by our reckoning, 52° W. and the second time, three days afterwards, in latitude $22^{\circ} 7'$, and longitude 55° : but in general the heat of the sea, near the tropic of Cancer, about the middle of April, was from 76 to 77° .

“ The rendezvous appointed for the fleet being off Cape Fear, our course, on approaching the American coast, became north-westward. On the 23d* of April, the heat of the sea was 74° ; our latitude, at noon, $28^{\circ} 7'$ N. Next day the heat was only 71° ; we were then in latitude $29^{\circ} 12'$; the heat of the water, therefore, was now lessening very fast, in proportion to the change of latitude. The 25th, our latitude was $31^{\circ} 3'$; but though we had thus gone almost 2° farther to the northward, the heat of the sea was this day increased, it being 72° in the morning, and $72\frac{1}{2}^{\circ}$ in the evening. Next day, the 26th of April, at half after eight in the morning, I again plunged the thermometer into sea-water, and was greatly surprised to see the quicksilver rise to 78° , higher than I had ever observed it, even within the tropic. As the difference was too great to be imputed to any accidental variation, I immediately conceived that we must have come into the Gulf Stream, the water of which still retained great part of the heat that it had acquired in the torrid zone. This idea was confirmed by the subsequent, regular and quick diminution of the heat: the ship's run for a quarter of an hour had lessened it 2° ; the thermometer, at three quarters after eight, being raised by sea-water fresh drawn, only to 76° ; by nine the heat was reduced to 73° ; and, in a quarter of an hour more, to 71° nearly; all this time the wind blew fresh, and we were going seven knots an hour on a north-western course. The water now began to lose the fine transparent blue colour of the ocean, and to assume something of a greenish olive tinge, a well-known indication of soundings. Accordingly, between four and five in the afternoon, ground was struck with the lead, at the depth of eighty fathoms, the heat of the sea being then reduced to 69° . In the course of the following night and next day, as we came into shallower water and nearer the land, the temperature of the sea gradually sank to 65° , which was nearly that of the air at the time.

Unfortunately, bad weather on the 26th prevented us from taking an observation of the sun; but on the 27th, though it was then cloudy at noon, we calculated the latitude from two altitudes, and found it to be $33^{\circ} 26'$ N. The difference of this latitude from that which we had observed on the 25th, being $2^{\circ} 23'$ was so much greater than could be deduced from the ship's run, marked in the log book, as to convince the seamen that we had been set many miles to the northward by the current.

On the 25th, at noon, the longitude by our reckoning, was 74° W. and I believe the computation to have been pretty just; but the soundings, together with the latitude, will determine the spot where these observations were made, better than any reckoning from the eastward. The ship's run, on the 26th, from nine in the forenoon to four in the afternoon, was about 10 leagues on a N. W. by N. course; soon afterwards we hove to in order to sound, and finding bottom, we went very slowly all night, till noon the next day.

From these observations, I think it may be concluded that the Gulf Stream, about the 33d degree of north latitude, and the 76th degree of longitude west of Greenwich, is, in the month of April, at least six degrees hotter than the water of the sea through which it runs. As the heat of the sea-water evidently began to increase in the evening of the 25th, and as the observations show that we were getting out of the current when I first tried the heat in the morning of the 26th, it is most probable that the ship's run during the night is nearly the breadth of the stream, measured obliquely across; that, as it blew a fresh breeze, could not be less than twenty-five leagues in fifteen hours, the distance of time between the two observations of the heat, and hence the breadth of the stream may be estimated at twenty leagues. The breadth of the Gulf of Florida, which evidently bounds the stream at its origin, appears by the charts to be two or three miles less than this, excluding the rocks and sand banks, which surround the Bahama Islands, and the shallow water that extends to a considerable distance from the coast of Florida; and the correspondence of these measures is very

* From the difference between civil and astronomical time, it becomes necessary to observe that the former is always meant in this work.

remarkable, since the stream from well-known principles of hydraulics, must gradually become wider as it gets to a greater distance from the channel by which it issues.

If the heat of the Gulf of Mexico were known, many curious calculations might be formed by comparing it with that of the current. The mean heat of Spanish Town and Kingston in Jamaica, seems not to exceed 81° ;* that of St. Domingo, on the sea coast, may be estimated at the same, from Mons. Godin's observations;† but as the coast of the continent, which bounds the gulf to the westward and southward, is probably warmer, perhaps a degree or two may be allowed for the mean temperature of the climate over the whole bay: let it be stated at 82 or 83 degrees. Now there seems to be great probability in the supposition, that the sea, at a certain comparatively small distance below its surface, agrees in heat pretty nearly with the average temperature of the air, during the whole year in that part; and hence it may be conjectured that the greatest heat of the water as it issues out of the bay, to form the stream is about 82° ‡ the small variation of temperature on the surface not being sufficient to affect materially that of the general mass. At the tropic of cancer, I found the heat to be 77° the stream, therefore, in its whole course from the Gulf of Florida, may be supposed to have been constantly running through water from 4 to 6 degrees colder than itself, and yet it had lost only 4° of heat, though the surrounding water, where I observed it, was 10° below the supposed original temperature of the water which forms the current. From this small diminution of the heat, in a distance probably of 300 miles, some idea may be acquired of the vast body of fluid, which sets out from the Gulf of Mexico, and of the great velocity of its motion. Numerous observations on the temperature of this stream, in every part of it, and at different seasons of the year, compared with the heat of the water in the surrounding seas, both within and without the tropic, would, I apprehend, be the best means of ascertaining its nature, and determining every material circumstance of its movement, especially if the effect of the current in pushing ships to the northward is carefully attended to, at the same time with the observations upon its heat."

On the 25th of September, 1777, as the ships which had transported Sir William Howe's army up Chesapeak Bay were returning towards the Delaware with the sick and stores, they were overtaken, between Cape Charles and Cape Henlopen, by a violent gale of wind, which, after some variation, fixed ultimately at N. N. E. and continued five days without intermission. It blew so hard that we were constantly losing ground, and driving to the southward: we also purposely made some *easting* to keep clear of the dangerous shoals which lie off Cape Hatteras.

On the 28th, at noon, our latitude was $36^{\circ} 40'$ N. and the heat of the sea, all day, about 65° . On the 29th, our latitude was $36^{\circ} 2'$; we had therefore, in the course of these 24 hours, been driven by the wind 38 nautical miles to the southward; the temperature of the sea continued nearly at 65° . Next day, the 30th, our latitude at noon was $35^{\circ} 44'$ only 18 miles farther to the southward, though, in the opinion of the seamen aboard, as well as my own, it had blown at least as hard on this as on any of the preceding days, and we had not been able to carry more sail; consequently it may be concluded that, some cur-

* History of Jamaica, London, 1774, vol. iii. p. 652, 653. The different observations of the heat recorded in that work do not agree together; but those adopted here are taken from that series which appear to me most correct.

† Monsieur Godin's experiments upon the pendulum were made at the Petit Grove. They continued from the 24th of August to the 4th of September, and the average heat during that time was such as is indicated by 25° of M. de Reaumer's thermometer, (see Mem. Acad. Scienc. 1735, p. 5. 7.) according to M. de Luc's calculation (see Modifications de l'Atmosphère, vol. 1, p. 378,) the 25th degree of Reaumer's *true* thermometer answers to about the 85th of Fahrenheit's; but the average heat in Jamaica during the months of August and September, is also 85° ; hence we may conclude that the mean heat for the whole year is nearly the same on the sea coasts of both islands.

‡ The lowest calculation of the mean temperature of the gulf is preferred on this occasion because of the constant influx of new water from the Atlantic Ocean, produced by the trade winds, which water, not having been near any land, must, I think, be sensibly colder than that which has remained some time enclosed in the bay. On this subject, the observations made by Alexander Dalrymple, Esq. relative to the heat of the sea near the coast of Guinea, ought to be consulted. (See Phil. Trans. vol. 68, p. 394, &c.)

rent had set the ship 20 miles to the northward. To know whether this was the Gulf Stream, let us consult the thermometer. At half after nine in the forenoon of this day, the heat of the water was 76° , no less than 11° above the temperature of the sea before we came into the current.

Towards evening the wind fell, and we stood N. W. by N. close hauled. As the sea still ran very high, and the ship scarcely went above 2 knots an hour, we did not make less than 3 points of leeway on this tack; the course we made good, therefore, was W. N. W. which, on the distance run by noon next day, gave us about 16 miles of *northing*; but that day, the 1st of October, our latitude was $36^{\circ} 22' 38$ miles farther to the north than we had been the day before; the difference, 22 miles, must be attributed to the Gulf Stream. This, however, is only part of the effect which the current would have produced upon the ship, if we had continued in it the whole four-and-twenty hours; for though we were still in the stream at five in the afternoon of the 30th, as appeared by the heat of the water, being then above 75° , and at eight in the evening the heat being still 74° , yet by seven the next morning we had certainly got clear of it, the heat of the sea being then reduced to its former standard of 65° . On this occasion, therefore, we did not cross the stream, but, having fallen in with it obliquely on the western side, we pushed out again on the same side, as soon as the gale abated.

These observations having been made 3° to the northward of my former ones, it is curious to observe, that the heat of the Gulf Stream was 2° less. The seasons of the year, indeed, were very different; but, perhaps, under such circumstances, that their effects were nearly balanced. In the latter observations the meridian altitude of the sun was less; but then a hot summer preceded them: whereas, in the former, though the sun's power was become very great, yet the winter had been past but a short time. Calculating upon this proportion, we may be led to suspect, that, about the 27th degree of latitude, which is as soon as the stream has got clear of the Gulf of Florida, it begins sensibly to lose its heat from 82° , the supposed temperature of the Gulf of Mexico, and continues to lose it at the rate of about 2° of Fahrenheit's scale to every 3° of latitude, with some variation, probably, as the surrounding sea and the air are warmer or colder at different seasons of the year.

The preceding facts had made me very desirous of observing the heat of the Gulf Stream on my passage homeward: but a violent gale of wind, which came on two days after we had sailed from Sandy Hook, disabled every person on board, who knew how to handle a thermometer, from keeping the deck. The master of the ship, however, an intelligent man, to whom I had communicated my views, assured me, that on the second day of the gale, the water felt to him remarkably warm; we were then near the 70° of west longitude. This agrees very well with the common remark of seamen, who allege, that they are frequently sensible of the Gulf Stream off Nantucket Shoals, a distance of more than 1000 miles from the Gulf of Florida! According to the calculation I have before adopted, of a loss of 2° of heat for every 3° of latitude, the temperature of the Gulf Stream here would be nearly 73° ; the difference of which from 59° the heat that I observed in the seawater, both before and after the gale, might easily be perceived by the master of the vessel. This was in the winter season, at the end of December.

An opinion prevails among seamen, that there is something peculiar in the weather about the Gulf-Stream. As far as I could judge, the heat of the air was considerably increased by it, as might be expected; but whether to a degree or extent sufficient for producing any material changes in the atmosphere must be determined by future observations.

Perhaps other currents may be found, which, issuing from places warmer or colder than the surrounding sea, differ from it in their temperature so much as to be discovered by the thermometer. Should there be many such, this instrument will come to be ranked amongst the most valuable at sea; as the difficulty of ascertaining currents is well known to be one of the greatest defects in the present art of navigation.

In the mean time, I hope, the observations which have been here related are sufficient to prove that, in crossing the Gulf Stream, very essential advantages may be derived from the use of the thermometer; for, if the master of a ship,

bound to any of the southern provinces of North America, will be careful to try the heat of the sea frequently, he must discover very accurately his entrance into the Gulf Stream by the sudden increase of the heat; and a continuance of the same experiments will show him, with equal exactness, how long he remains in it. Hence he will always be able to make a proper allowance for the number of miles that the ship is set to the northward, by multiplying the time into the velocity of the current. Though this velocity is hitherto very imperfectly known from want of some method of determining how long the current acted upon the ship, yet all uncertainty arising from thence must soon cease, as a few experiments upon the heat of the stream, compared with the ship's run, checked by observations of the latitude, will ascertain its motion with sufficient precision. From differences in the wind, and perhaps other circumstances, it is probable that there may be some variations in the velocity of the current; and it will be curious to observe whether these variations may not frequently be pointed out by a difference in its temperature; as the quicker the current moves, the less heat is likely to be lost, and, consequently, the hotter will the water be. In this observation, however, the season of the year must always be considered; partly, because it may, perhaps, in some degree, affect the original temperature of the water in the Gulf of Mexico; but principally, because the actual heat of the stream must be greater or less in proportion as the tract of the sea, through which it has flown, was warmer or colder. In winter, I should suppose that the heat of the stream itself would be rather less than in summer; but that the difference between it and the surrounding sea would be much greater; and I conceive that, in the middle of summer, though the stream had lost very little of its original heat, yet the sea might, in some parts, acquire so nearly the same temperature, as to render it scarcely possible to distinguish by the thermometer when a ship entered into the current.

Besides the convenience of correcting a ship's course, by knowing how to make a proper allowance for the distance she is set to the northward by the current, a method of determining with certainty when she enters into the Gulf-Stream is attended with the farther inestimable advantage of showing her place upon the ocean in the most critical situation; for, as the current sets along the coast of America, at places on soundings, the mariner, when he finds this sudden increase of heat in the sea, will be warned of his approach to the coast, and will thus have timely notice to take the necessary precautions for the safety of his vessel. As the course of the Gulf Stream comes to be more accurately known, from repeated observations of the heat and latitudes, this method of determining the ship's place will be proportionably more applicable to use. And it derives additional importance from the peculiar circumstances of the American coast, which, from the mouth of the Delaware to the southernmost point of Florida, is every where low, and beset with frequent shoals, running out so far into the sea, that a vessel may be aground in many places where the shore is not to be distinguished even from the mast-head. The Gulf Stream, therefore, which has hitherto served only to increase the perplexities of seamen, will now, if these observations are found to be just in practice, become one of the chief means of their preservation upon this dangerous coast. [The course and velocity of the Gulf Stream are more fully laid down on a chart of the Western Ocean, published by the author of this work.]

Extract of a letter from Francis D. Mason, Esq. to Col. Jon. Williams, commandant of the corps of Engineers, and Author of "Thermometrical Navigation," at New-York, dated
 "CLIFFTON, (Eng.) 20 June, 1810.

"MY voyage from New-York to Halifax, in the British Packet Eliza, was so very tempestuous and unfortunate (having carried away our foremast,) that I did not make any Thermometrical observations; but when we sailed from Halifax, on the 27th of April, I began them, and continued till I unfortunately broke both my Thermometers. However short the time was, you will perceive that my observations have been very important, and I herewith send the result of them. You will perceive with what fidelity the thermometer indicated the banks and the approximation towards islands of Ice. The captain was so convinced of the usefulness of the Thermometer, that he made regular remarks, and inserted them in his journal. I gave him one of your books, thinking it would be pleasing to you that I should extend the knowledge of a discovery so useful as yours, and I wish it were more generally known. After having miraculously escaped the islands of Ice and several severe gales, we arrived at Falmouth on the 22d of May, 1810.

Dates.	Hours.		Heat of		Lat. N.	Long. W.	REMARKS.				
	A. M.	P. M.	Air.	Water.							
Ap. 28	10		44°	40°	43°30'	62°52'	Sable Bank.				
		1	47	41							
		4	43	42							
		3	46	40							
29	8		45	43	42 27	60 54	Tacking towards edge of stream. Steering in the stream.				
	Noon.		49	48							
		5	50	62							
		7	48	64							
		10	48	54							
30	9		58	62	42 1	59 21					
	Noon.		60	61							
		5	58	61							
		9	60	60							
May 1	8		60	58	41 53	56 52	Sound in 70 fa. no bottom : the water at that depth 2° warmer than on the surface An island of ice, bearing S. S. E. 7 mil. Abreast of ice 1/3 mile to leeward. Island of ice bears S. S. W. 7 miles.				
	11		60	46							
		2	64	25							
		3	62	46							
		4	58	47							
		5	60	47							
		6	57	45							
		8	56	43							
	2	1		58				50	41 25	53 8	Sound with 70 fathoms no bottom. Sound with 80 fathoms no bottom. Sound with 80 fathoms no bottom. An enormous island of ice abreast 100 yards. This was about 150 ft high and 1 mile in diameter. When first discovered it was not 100 yds. from the vessel, and we were sailing directly towards it. The obscurity was then so great, that at that distance it appeared only like a white cloud extending from the sea over our masts. Passed several islands of ice, the largest bearing S. W. 7 miles. No bottom by 80 fathoms.
		3		60				60			
8			60	62							
10			63	63							
Noon.			64	63							
		3	61	64							
		6	62	58							
		9	56	56							
		12	50	56							
		4	43	43							
	6	40	39								
4	8		41	44	42 1	60 4					
	10		43	45							
	Noon.		44	43							
		4	44	50							
		6	46	60							
	Midn. 12		46	60							
	4		46	52							
	3		43	60							
	Noon.		54	59							
		8	49	60							
5		12	48	60	42 54	46 2					
	6		47	59							
	Noon.		53	59							
Broke the Thermometers.											

REMARKS ON THE FOREGOING JOURNAL.

THE important point of comparison, is the difference in the heat of the water in different places, in or near the stream, in the ocean, out of the stream, on the coast, and near islands of ice, not the difference between the heat of the water and the air, as some have imagined. This latter is merely a concurrent observation; it serves to account for ordinary changes, and thereby to guide the judgment.

From April 28, at 10 A. M. to April 29, at 3 A. M. we see the temperature of the sea in the shoals of Sable, from 40 to 43. At 5 P. M. we see the warm influence of the Gulf-Stream from 62° to 64°. At 10 P. M. we see the temperature between the influence of the stream in deep water, and the coast, at 54° which is about a mean between the two; then standing off shore, at 9 the next morning, 30th, we see the warm influence of the stream again.

If these stripes of water had been distinguished by the colours of white, red, and blue,

could they be more distinctly discoverable than they are by the constant use of the thermometer?

About 23 hours afterwards, May 1, at 8 A. M. we find the water cooling, and in 3 hours more the mercury falls 14 degrees (46°.) Here no bottom could be found by the lead, and there was probably an island of ice obscured by fog. (Let it be remembered, that the coldness of ice condenses the atmosphere, and of course the consequence must be fog.)—Passing this at 2 P. M. the thermometer rose to 54°, but in one hour more it fell to 46° again, and an island of ice appeared at the distance of seven miles. Let navigators reflect on this, and say that a sudden fall of 6° in this part of the ocean, ought to induce them to haul to the southward, and keep a good look out. From May 1, at 11, A. M. to the next morning, at 1 A. M. we see the gradual changes as the ship passes the ice and comes again into ocean water; (50°) but in two hours more, the ship is in the warm influence of the stream again, and the mercury rises 10 degrees (60°.) She proceeds in a nearly regular degree of heat during 17 hours, till at 6 P. M. the water begins again to cool, falling to 56° at midnight. Here was no bottom in 80 fathoms. May 3d. at 4 A. M. the water was at 43° still no bottom in 80 fathoms. Now, from past experience, we must say, here is an island of ice in a less distance than seven miles, because at that distance the water was 46°. When day appears, behold an enormous island of ice abreast 100 yards, and the heat of the water reduced to 39°! A question now occurs.—Had not the thermometer been thus used, had it not been continued during the night, what would have been the fate of this ship? Let the recollection of the miserable fate of the ship *Jupiter, be an impressive answer; and let it be laid down as a maritime axiom, that want of caution, or ignorance, can alone cause such accidents in future.

JONA. WILLIAMS.

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*Temperature of the air and water on a passage from New-York to Ireland,
March, 1816.*

March	7	Air.	Water.	Lat. N.	Long. W.	Wind.
	8	Noon.				
	9					
	10					
	11	44 15	68 30	39 8 N.	61 36	N. In the Gulf.
	12	46 00	66 00	39 36	59 03	N. do.
	13	47 00	65 00			S. & W. do.
	14	56 30	64 00	40 36	54 17	N. do.
	15	64 00	*59 30	40 42	52 47	W.
	16	56 00	†43 00	42 00	49 51	S. W.
	17	44 00	‡59 00	42 25	47 04	N. E.
	18	58 00	61 30	42 25	45 42	S. & W.
	19					
	20	47 00	57 00	43 44	39 27	S. & W.
	21	52 00	57 00	44 22	37 15	S. & W.
	22	56 30	56 00	45 43	33 44	S. & W.
	23	51 00	54 00	46 46	31 33	S. & E.
	24					
	25					
	26	52 30	50 00	49 11	21 57	W.
	27					
	28	47 00	42 00	51 24	18 13	S. & E.
	29					
	30	48 00	50 00	51 15	17 25	E.
	31	48 00	50 00	51 15	15 55	N. & E.
April	1	48 00	50 00	50 50	12 44	N. W.
	2	45 00	50 00	50 44	10 24	S. W.
	3	48 00	50 00	51 17	10 24	E.
	4	48 00	50 00	50 30	9 13	E.
	5	49 00	50 00	49 54	10 46	N. E.
	6	49 03	50 00	50 13	10 23	N. E.

* West of the Bank.

† On the Bank.

‡ East of the Bank.

* Captain Law's protest, containing the particulars of the distressing circumstance of this ship, states,

"April 6, in latitude 44° 20', longitude 49°, at 8 A. M. saw several pieces of broken ice, from which at 11 the same day, we supposed ourselves entirely clear, and steering W. by N.—W.—E. N. E. and foggy weather. At 2 P. M. began to discover islands of ice again, and at three o'clock saw a large field ahead, which appeared to have no opening. We then wore ship and kept off to the southward and eastward; continually passing small islands of ice, until 5 P. M. when we found the ice extending so far to north and south that we could not clear it. We then hove about and stretched to the northward among the broken ice, till night came on, and no prospect of getting clear. We hove too under the three topsails double reefed in hopes to have sufficient drift to keep clear of the fields of ice

From the above remarks the importance of the Marine Thermometer may be fully illustrated. On the 16th, the ship crossed the bank, at which time the temperature of the water was $15^{\circ} 45''$ colder than the previous and following days. A particular use of this instrument as you approach the coast, will unquestionably point out the soundings, and render useful services to the navigator. (From the scientific gentleman who communicated the above, some important nautical information has been received, relative to the southern ocean, for which he will accept the thanks of the Editor, with his best wishes, that all but adverse fortune may follow him.)

From the mouth of St. Mary's River to St. Augustine.

St. Augustine lies S. by E. $\frac{1}{2}$ E. 20 leagues from St. Mary's bar; between them lies Nassau and St. John's rivers. The bar or entrance of Nassau lies, 5 leag. to the southward of St. Mary's; between them there are 5 fathoms water. The sands, at the entrance of Nassau, lie 3 miles off from the S. E. point of Amelia island, and from the N. E. point of Talbot island. The entrance of St. John's lies 3 leagues to the southward of that of Nassau. Between St. John's and St. Augustine the shore is bold; you will have 5 or 6 fathoms within half a mile of the shore. When you are abreast of Point Carteel, you will open St. Augustine's bay. When St. Augustine's fort, which is large and white, bears W. by N. distant 8 miles, you will have about $7\frac{1}{2}$ fathoms water. Before St. Augustine lies the north end of the island St. Anastatia.

St. Augustine's bar is formed by the extremity of a narrow sand, which extends 2 miles E. S. E. from point Carteel, and the point of another sand which extends half a mile E. by N. from the N. E. point of St. Anastatia Island. This bar is a little more than a quarter of a mile wide, with a small shoal lying in the middle, which divides it into two channels, called the North and South bars; there are not more than 12 feet on either of them at high water, spring tides. On the north end of St. Anastatia island, there is a look-out house, which appears like a light-house.

Matanza inlet lies S. S. E. $\frac{1}{2}$ E. about 6 leagues from St. Augustine's bar. This inlet is at the south end of St. Anastatia island; there are only $8\frac{1}{2}$ feet on the shoalest part of the bar at high water. Vessels that go in at this inlet, may proceed between St. Anastatia's island and the main, to St. Augustine; on the south end of this island there is also a look-out house. The tide flows at both ends of the island, on the change and full days of the moon, half past 7 o'clock.

Cape Canaverel lies S. S. E. 24 leagues from Matanza inlet; between them lies Moskito inlet, or New Smyrna entrance; it is about 11 leagues N. N. W. $\frac{1}{4}$ W. from Cape Canaverel. The shore all the way from Matanza inlet to the cape, is bold, excepting a rocky shoal, which extends $1\frac{1}{2}$ mile from the shore, about five miles to the southward of Matanza inlet.

From Cape Canaverel some rocky shoals extend E. about 6 leagues; their breadth, from south to north, is about $5\frac{1}{2}$ leagues. The N. E. extremity lies $4\frac{1}{2}$ leagues N. E. $\frac{1}{2}$ E. from the cape; and the S. E. extremity lies S. E. by E. $\frac{1}{4}$ E. $5\frac{1}{2}$ leagues. Near to them on the south side, there are 4 fathoms; and near to them without, or on the east side, there are 9 fathoms.

The northernmost part of Maranilla reef bears E. by S. from Cape Canaverel. Near to these shoals on the north side, there are 5 fathoms water, bearing S. E. by E. distant 26 leagues. Memory rock bears S. S. E. $\frac{1}{2}$ S. distant 28 leagues from the cape, and 25 leagues S. S. E. $\frac{1}{2}$ E. from the easternmost part of the shoals which lie off the cape.

About 16 leagues S. by E. from Cape Canaverel is Ayes inlet, now called

to leeward until daylight, but found at about 11 we were drifting fast upon a large field, and were obliged to wear ship and haul to the southward under easy sail, luffing and bearing away for the broken ice as occasion required, until half past 12, when we struck a small piece which we found had gone through the starboard bow.

"Captain Law would recommend to any vessels bound to Europe, not to go to the north of latitude 39° , as the information of Captain Guiner in the schooner that relieved him had been as far to the southward as $41^{\circ}, 30'$, and could see no southern termination."

Hillsborough inlet; the land between them is curved; near to the shore in the bite, there are some rocks. Between the cape and this inlet, there are 2, 3, 4, 5, 6, 7, and 8 fathoms water. From Hillsborough inlet to the S. E. part of the shoals, which lie off Cape Canaveral, your course is N. by E. and the distance $13\frac{1}{2}$ leagues, between them there are 10 fathoms water. Memory rock lies 16 leagues E. S. E. from Hillsborough inlet.

From Cape Canaveral to Biscaina isle, the coast lies nearly south, and the distance is about 54 leagues. From Biscaina isle to Cape Largo, the coast runs south-westerly; and from Cape Largo to Cape Florida, it runs S. by W. and S. S. W.

Maranilla reef is the north end of the Little Bahama Bank. As the flood tide sets in on every part of this end of the bank, it is exceedingly dangerous.

About 12 leagues S. by W. from Memory bank lies Seal key; this key lies off the north end of the Bahama island: this is a long narrow island, stretching about S. E. by E. and N. W. by W. 23 leagues; it is rocky from one end to the other.

Directions for Vessels bound from the Eastward over the Great Bahama Bank, towards the Island of Cuba, and from thence into the Gulf of Mexico.

First make the Hole in the Wall, which lies in lat. $25^{\circ} 54'$ N. and long. $77^{\circ} 16'$ W. (at the south end of Abaco) and from thence steer West $19\frac{1}{2}$ leagues, which will carry you to (1) Stirrup Key, in lat. $25^{\circ} 50'$ N. long. $78^{\circ} 1'$ W. (the northernmost of the Berry islands) which you leave on your larboard hand. From this steer W. S. W. $2\frac{1}{2}$ leagues, which will bring you on the edge of the Bank, distant 2 leagues from the W. end of Stirrup Key. From the north edge of the Bank steer S. by W. $\frac{3}{4}$ W. $29\frac{1}{2}$ leagues; which course and distance will bring you up with (2) Orange Key, that you leave on your starboard hand; at the south of which, you may anchor if necessary, or go off the Bank by steering W. $\frac{1}{4}$ N. In these courses you will not have less than $2\frac{1}{2}$ fathoms, and attention must be paid to the current while on the Bank.

Another track across the Bank is, after entering on the North edge as before described, and run S. by W. $\frac{3}{4}$ W. $3\frac{1}{4}$ leagues, steer S. W. by S. 17 leagues, which will carry you off the Bank, leaving the (3) Riding Rocks on your starboard hand.

Should you go off the bank in the night, steer W. S. W. if the wind is to the northward; and if to the southward of S. E. steer higher to avoid the current, which sets to the N. W. If you do not see the Double-headed Shot Keys in time, you must haul up more to see them. I would not advise you to go off the Bank before 12 o'clock at night.

OTHER DIRECTIONS.

If you take your departure from the Bank in about lat. $24^{\circ} 40'$ (which leaves Orange Key $1\frac{1}{2}$ league on your larboard hand) and steer S. W. by S. $\frac{1}{2}$ S. about

(1) To the westward of Stirrup Key, is a tongue of ocean water, shooting into the Bank.

(2) S. W. from Orange Key, 5 or 6 miles distant, is good anchorage in 20 fathoms water. When up with this bank a passage is secured through the Gulf; for then you may make sail, either in the morning or at midnight, steering S. W. 10 or 11 leagues, that will enable you to fall in with Key Sal Bank, which for 10 leagues on the N. side stretches E. and W. and consequently, the current sets stronger as you come to the westward. In coming over you have good soundings all along by it. There is anchorage by spots all the way in, but the soundings are narrow at the Double-headed Shot, the N. W. point of which lies in lat. $24^{\circ} 00'$ N.

(3) The Riding Rocks are bare of bushes, and appear like wrecks; the Spaniards call them los Nuevos. S. W. by S. about 7 miles distant from the southernmost, is a shoal, on which a very rich Spanish galleon struck in 1765; her bottom now lies about E. or E. by S. 1 or 2 miles from the shoal in 17 feet water.

20 leagues, you will avoid most of the northwesterly current, and make the N. E. Range on Key Sal, between which rocks and the Dog Keys to the westward, or Anguilla to the eastward, you may pass on Salt Key Bank and have from 7 to 10 fathoms; when well on the Bank, steer S. W. by W. or W. S. W. for Key Sal: you will find regular soundings not less than $4\frac{1}{2}$ fathoms, nearly up with Key Sal; to the eastward of this Key is a dangerous breaker, about 5 or 6 miles off, and another bearing N. W. distant 6 miles; on either side of which breakers and key, you will find from $4\frac{1}{2}$ to 10 fathoms water. When bound to Matanzas, Havanna, or to leeward, I would advise crossing this Bank, as you can anchor in case of calm or head wind. Steer about W. S. W. from Key Sal, and you will, after running 20 leagues, see the Cabaso's (or Paps of Calimelioca on the Island of Cuba) to the southwestward of you. Keeping along shore you will next see the Pan of Matanzas: Be sure to give the Keys and sands of Point Yeacos a good birth. If bound to Matanzas bring the Cabasos to bear between S. S. W. and S. S. E. then steer for them till you see the N. E. point of Matanzas bay, which you may keep within half a mile of, steering for the southern shore, until you see a small fort called Canima, on the southeastern shore of the bay, which run for till you open the fort to the northward of the city, which will bear W. S. W. You should then run directly for this castle till nearly up with it; which you must give a birth of about $1\frac{1}{2}$ cable's length, then run about $\frac{1}{4}$ of a mile south-westerly to the anchoring place. In running by these directions, you have the Middle Ground to the southward, and the N. E. point of the bay to the northward. The Middle Ground is rocky, and said to have but 5 feet water on some parts of it. In clear weather you can see bottom along by the north shore, which will be a guide to you, as the coral bank lies off about a cable's length from the shore. [NOTE—Canima Fort bears about S. E. from the N. E. point of the bay, and the Pan of Matanzas bears about S. W. $\frac{1}{2}$ W. from it. The best passage across Salt Key Bank is on the track laid in a Chart of the American Coast, extending from New-York to Havanna, published by the Author of this work. The entrance on the bank, by the above-named Chart, is about 3 miles from the north end of Anguilla, and the course from thence about W. by N. 16 leagues, which will carry you up with the north end of Key Sal, from which steer W. S. W. and go off the Bank.]

If bound into Havanna, run close on board the Moro, (which lies on the larboard hand,) and stand up for the shipping, there being nothing to hurt you. Be sure not to let go your anchor till well in the harbour, as a reef lies on the starboard hand, a little within the harbour, which is very dangerous. The set of the current between Havanna and Double-headed Shot Keys is N. E. by E. and close to the Double-headed Shot Keys it sets N. E.

N. B. Should you sail for the before-mentioned Keys in the night, by all means keep clear of them; they are a number of bare rocks, perhaps a hundred or a hundred and twenty, about the size of a vessel, and some less; but in general, there is water plenty between them, and about them. S. by E. about 6 or 7 leagues from the Double-headed Shot Keys, is Key Sal, so called because the Spaniards make salt there, and about which are several sunken rocks. The best way is to go S. W. from the Orange Keys, and not run the distance between the Orange Keys and Key Sal before morning: If in the morning, you find yourself in ocean water, run S. W. by S. for Matanzas; if not, keep down west, till you be in ocean water; then haul up for the coast of Cuba, and run down it till you are abreast of (4) Bahia Honda, from whence you must steer over N. W. or thereabouts, which will carry you clear of every thing, into the Gulf of Mexico.

(4) Bahia Honda lies about 10 miles N. E. from Loose Key, in lat. $24^{\circ} 35' N.$ It has a large entrance and a fair channel of 4 or 5 fathoms, but when you are in the harbour it shoals to $3\frac{1}{2}$, 3, $2\frac{1}{2}$ and $2\frac{1}{2}$ fathoms, and the bottom in general is rather hard, rough ground. It may be easily known by three small islands on the west side of the entrance, and a large island on the east side, a mile long, with a sandy beach, remarkable for a number of tall palmetto-cabbage trees, the first of the kind you fall in with, coming from the westward.

Vessels drawing over 13 feet water should not attempt passing the Bank; their best passage is, when up with the Hole in the Wall, steer W. by N. 36 leagues, which will carry you to the west edge of the Bank, and about 2½ leagues from the Great Isaac, then shape your course through the Gulf, but be careful not to go on the west part of the Bank, as there is a danger (called Mosalle Rock) bearing S. W. by S. from the Great Isaac, 10 miles distant.

In sailing through the Gulf the Author recommends to the attention of every Navigator, the following

IMPORTANT REMARK—To communicate some idea of the current in the Gulf of Florida, and irregularities of its setting, we copy the following, received from a gentleman who was deceived in its effect, viz. "We took our departure from the westward of Cat Key and steered S. S. W. 24 leagues; from thence we steered S. S. W. ½ S. 5½ leagues, when we altered our course to S. S. W. ¼ W. 6 leagues, with the wind squally at N. W. going at the rate of 8 knots; and while in the act of reefing topsails, judging ourselves near the *Double-headed Shot Keys*, we struck on the *Carrysford Reef*." The course steered by compass was S. S. W. whereas the drift made her course W. S. W. Too much attention cannot be paid to setting of currents, and we recommend it with diffidence, and yet forcibly, to the Navigator.

[NOTE.—Navigators should be cautious, while crossing the Bahama Bank, never to follow vessels, if they alter their course often; as the New-Providence Wreckers have frequently decoyed them for the purpose of plunder; a crime which the most barbarous nation would punish with the greatest severity. This is not published to give offence to any one, but it applies to some of the Providence Navigators, and it is our duty to point out danger to Mariners, from which the Editor will never deviate, or hide from investigation.]

Directions for vessels bound to the Eastward.

THE set of the current between Anguilla Bank and Bahama Bank, being S. S. E. and N. N. W. you will take your departure from the Moro Castle, which lies in lat. 23° 9' N. long. 82° 19' W. and steer E. 19 leagues, to the Pan of Matanzas, from whence steer N. E. till you get in lat. 23° 57'; then N. N. E. ¼ E. 40 miles, after which N. N. E. which will carry you clear of all rocks, reefs and shoals.

Directions for sailing into Mobile Bay.

MOBILE POINT is a low sandy point, on the east side of the Bay of Mobile. There is a shoal extending to the southward nearly six miles; the depth of water in some places not exceeding 4 feet. If bound over the Bar into Mobile Bay, never attempt with a vessel with a large draught of water to come into shoaler water than 10 fathoms until you take the following bearings, viz.

Mobile point N. by W. the N. E. end of Dolphin island, N. W. by N. then run in N. N. W. until you bring Mobile point to bear N. by E.; you will then be on the pitch of the bar, in 3 and 3½ fathoms; then stand north for the point, which is bold at a cable's length. Between Mobile point and Dolphin Island, lies a shoal; its distance from Mobile point, is about one mile. If bound to Mobile, steer N. N. W. until you are clear of Dolphin Island, and then north, which course will bring you opposite to a red bluff on the east side of the bay;—Mobile River will then bear N. W. from you. There are 7 fathoms at the point.

Two Miles from Mobile Point you come to 14 feet water and carry it to the upper Bar.

N. B. The above courses are by compass.

Directions for sailing to and from the River Mississippi, by S. B. Davis, Harbour Master of the Port of New-Orleans.

VESSELS bound to the river Mississippi, if they come down the north side

of Cuba, should run to the westward as far as the table land of Marcel, or the bay of Húnda, take their departure from thence, and steer N. W. which course will carry them clear of the *Tortugas, and as soon as they are clear of the Tortugas, they should steer N. W. by N. until they get into the latitude of the river's mouth.

If you come down the south side of Cuba, I would advise taking a departure from Cape Cruz, and by all means to make the Little Caymans, but I would observe that in all charts that I have seen, there is an error in the distance from Cape Cruz to the Little Caymans, of more than 30 miles. The charts make the distance only about 70 miles, whereas the real distance is 100. On leaving the Little Caymans you must steer W. $\frac{1}{2}$ N. and on this course you may run with safety in the night or bad weather, without getting embayed to the westward of the Isle of Pines.

On leaving Cape Antonio, you should steer N. N. W. or N. by W. $\frac{1}{2}$ W. until you get into the latitude of the river.

To prevent missing the river and falling to the westward.

THE principal entrance of the river Mississippi is in lat. $29^{\circ} 5' N.$ but vessels bound there, should always run down 2 or 3 leagues to the northward; for by so doing you will have good soundings to guide you. When you have struck soundings, you may run in the parallel above directed into 18 or even 16 fathoms, and you will then have the Block house, (or Balize,) bearing south-westerly; the anchorage is good every where, and should it fall calm, a light kedge will prevent being drifted by the current, which is sometimes pretty strong on the coast, but it is much stronger in the lat. of the river's mouth than elsewhere, and no soundings until you are close in with the land.

* The Dry Tortugas consist of ten small islands or keys extending E. N. E. and W. S. W. for 10 or 11 miles, at the distance of about 30 leagues from the nearest part of the coast of Florida, 40 from Cuba, and 14 leagues from the westernmost of the Florida Keys. They are all very low, but some of them covered with mangrove bushes, and may be seen at 4 leagues distance. The south-westernmost key, which in going from Pensacola, Mobile, or the Mississippi, is the corner to be turned, and coming from Cape Antonio, the point to be avoided lies in $24^{\circ} 25' N.$ lat. and about $83^{\circ} W.$ long. from Greenwich. The variation of the compass, by a medium of several observations taken in the course of a survey during a summer, is $7^{\circ} E.$ A reef of coral rocks runs about a quarter of a mile S. W. from this key, the water on which is discoloured; and in general wherever there is danger, it may be easily seen from the mast-head, in the day-time. There is a large bank of brown coral rocks, intermixed with white patches of sand, about 5 or 6 miles to westward of the Tortugas, and having very irregular soundings from 6 to 12 fathoms. The bottom appears very plainly, and though it may be alarming to strangers, yet there is no danger. You will find from 13 to 17 fathoms between this bank and the Tortugas.

If you are bound eastward, and meet with a strong easterly gale, which is frequent there in the summer season, you may safely come to anchor in 5 or 6 fathoms, under the lee of the Long Sandy Island to the northward of the South-West Key, about $\frac{1}{2}$ mile off shore.

The bank of soundings extends about 5 or 6 leagues to the southward of the Tortugas, but much further to westward, and all the way to northward along the Florida shore. This is a lucky circumstance for the safety of navigation in those parts, as caution in sounding may prevent any danger in the night time; for the soundings are extremely regular all along this bank to the northward almost to Cape (Blaise) St. Blas, in lat. $29^{\circ} 40'$ so that by the lat. and depth of water we generally know how far we are to the eastward or westward. From 20 to 50 fathoms there is a space of several leagues, but from 50 to 60 it deepens fast to 70, 80, and soon after to no ground.

There is a broad channel over the bank to the eastward of the Tortugas, of 10 to 17 fathoms, which in going to and from the coast of West Florida, &c. might occasionally cut off a great deal of the distance; but that passage is by no means to be attempted unless you can see the Tortugas distinctly, and keep within 2 or 3 leagues of the easternmost of them; as there is a coral bank of only 12 feet, at the distance of 5 leagues; and further on towards Cayo Marques, (Marquis Keys,) the westernmost of the Florida Keys, there is a very dangerous and extensive bank of quicksand, on many parts of which there are no more than 4 or 5 feet water. It is of a remarkable white colour, and may be easily seen and avoided in the day time.

Caution to Masters of Vessels.

NAVIGATORS cannot be too cautious to avoid the Chandeleur islands, not that there is any danger if they are careful in sounding, but the depth of water diminishes quick from 30 fathoms to 15, 10, and 6; from this last depth of water the land can scarcely be seen from the top-gallant-mast-head of a ship of 300 tons, in fine weather.

Common Error of Strangers.

CAPTAINS not acquainted on the coast are frequently alarmed when they come near the river, by the appearance of the water, particularly during the first summer months, when the river is high, for at that time the fresh water of the river rushes out with great force, and being lighter than the ocean water, floats on the top, making an appearance altogether singular and alarming, for where the fresh water has not entirely covered the salt water, but leaving spots, it has the appearance of rocks, the river water being of a milky colour, while the other is quite dark, and changes suddenly.

On the setting of the Current.

THE current sets with very little variation to the east; and when any variation is experienced, it is either to the north or south of the river's mouth. It is very evident to every man of reflection, that so large a column of water rushing into the ocean must spread when it is no longer confined, and produce different currents, until it has found its level, and will be found to vary from the original course in proportion as you approach the edges: allowing the current to set due east, I have known two ships to come into the river at the same time, and the one complain of a southerly and the other of a northerly current, and that because the one had been to the south and the other to the north of the river's mouth; however, as every stranger should get into the proper lat. before he comes within the influence of its current I do not think it necessary to say any thing more on that subject.

Directions for the entrance of the River.

WHEN you have got sight of the Balize, or Look-out house, bring it to bear W. N. W. and run for it, and that will bring you up to the bar. If you see no pilot, (which is too often the case,) you may run with your anchors ready to let go, into 9 fathoms water with safety; and though it should blow hard from the south-east, you will ride without much strain on your cables.

To sail up the River.

IN sailing up the river, if you have a fair wind, run from point to point, carefully avoiding the bends, and by doing so, you will shorten the distance, have less current, and what is of more consequence, you will avoid the danger of having your vessel sunk by the trees which frequently lie under water. As you are coming up to, and passing a point, it will be well to heave a cast of the lead; with light winds, or when the wind is scant, always keep on the leeward side of the river.

On coming too or bringing up.

EVERY vessel, while in the river, should have their boat along side, with a good bawser in it, according to the size of the ship, ready to run out to a tree, which method of bringing up is always preferable to letting go an anchor, for you are sooner under way, and avoid the danger of losing your anchors.

Every vessel, while in the river, should have a haulabout block lashed under the bowsprit to receive a rope through, which rope should be bent to the crown of the anchor, in the same way as a buoy rope, and be strong enough to weigh it; the crown line should be of length sufficient that when the anchor is let go, you may rear it away with the cable and always have the end on board, as by this means, if you should get foul of any thing with your anchor, (which frequently happens,) you will get it again; otherwise you will be obliged to cut your cable and lose your anchor. If you are obliged to let go anchor, let it.

if possible, be at a point, for you will be more likely to find clear bottom. In the bends the bottom is always foul, being full of sunken trees, and there are few instances where an anchor need be let go in the bends, because you may always run a fast to a tree.

Shoals in the River.

ABOUT three miles above the Look-out house, and opposite what is called the Pas Aux Cautres, (one of the outlets of the river,) there is a flat makes out full half way over the river; this should be avoided by keeping near the pass, into which you must take care not to get drifted; this is what may be called the first shoal; the next is about seven miles above the Fort at Plaquemine, on the larboard side of the river as you are coming up; to avoid it you must keep nearer to the marsh on the starboard side: the marsh is the first land you come to without trees after leaving Plaquemine; here the land is very narrow, and by going a few steps up the shrouds, you may see the sea at not more than a musket shot distance; by these marks you may know when you are coming up with the shoal. The Fort lies opposite the marsh, and runs full one third of the way over; these are the only shoals that may be called dangerous, but as I have before observed, the lead should be cast whenever you are approaching a point.

Directions for Vessels bound down the River.

VESSELS going down the river, should always have sufficient sail on them to be able to keep clear of the shore; without great care you will be driven into the bends and lose your rudder, and this has frequently happened with experienced seamen; I would observe also, that every vessel, unless the wind is fair and settled weather, should bring to at sunset.

Directions for Vessels bound from the Mississippi through the Gulf.

EVERY vessel bound through the Gulf, on leaving the river, should avoid getting too fast to the southward, for you will meet with the trade wind, and by that means lengthen your passages. If the wind will permit, you should steer E. S. E. which course will carry you soon enough into the trade wind. If you can get soundings to the northward of the Tortugas, so much the better, but you should come no nearer in than 50 fathoms, and should then steer south, and if you should find the water shoaler, in this course, you should keep a little to the westward until you find it deeper. On leaving the Tortugas the current sets rapidly over towards the *Colorados; to this the greatest attention must be paid to avoid danger.

* The Colorados are the west end of the Bank of St. Isabella, a steep, dangerous shoal, extending in length 26 leagues as far as Rio de Puercos, or Hog River, on a course chiefly W. by S. They consist principally of three rocks, or keys; the westernmost, or Black Key, shows itself above water, like the hull of a ship, and may be seen about 4 miles off. The other two, or the Red Keys, are not seen unless it be quite calm; they have not above two feet water on them, and to the westward is no ground at a short mile distance. They lay about E. and W. Between them is a channel half a mile wide, and between the Black and Red Keys there are 4 fathoms water, very foul ground. Captain Street, in his account of these rocks, gives the following detail: "We took our departure from 4 or 5 leagues abreast of Cape Antonio, and made our way good N. E. by N. 15 leagues, and then fell upon the Colorados, in 3 feet water. They were about me dry in several places, without any distinction of swells and breakers: we saw flocks of pelicans sitting on the red-white sand. In this place we could see no dry land from the top-mast head, though very clear weather; but we saw to the east of us, three hummocks on Cuba. The innermost, or biggest, bearing E. by N. so near us, that we could see other hummocks within and without these three, and low land tending away from the innermost hummocks to the southward, and likewise the hummocks almost join with the low land between them. All this we could see on deck, or but two or three rattlings up; but the three aforesaid hummocks we raised upon deck, when we were about 9 or 10 leagues off our aforesaid station of 5 leagues to the westward of Cape Antonio."

The Gulf has been the subject of so many more able pens than mine, that I shall say nothing on the subject, only that I would always prefer beating up on the Cuba shore.

NOTES by the EDITOR.—The winds make a difference over the bar at the entrance of the Mississippi. The general depth of water is from 11 feet 6 inches to 14 feet.

The land at the entrance of the Mississippi river is nothing more than mud banks, continually increasing, with reeds and rushes growing upon it, to the height of 10 or 12 feet above the water. The Block House, or vessels at anchor, are generally the first you discover. The general winds are from the N. E. and you should avoid getting to the southward. In lat. 29, 18, N. you will strike soundings in 45 or 50 fathoms, small gray sand, with black specks, the Balize bearing W. by S. $\frac{1}{2}$ S. 40 miles distance.—When in 15 or 18 fathoms (soft sticky mud) you will see the Balize bearing S. W. (if clear weather.) With the Balize bearing S. W. run not into less than 12 fathoms, on account of some small mud banks, scarcely discernible above the surface, until the Balize bears W. N. W. and N. N. W. in 10 fathoms. The Balize bearing N. W. and an old sunken brig's mast bearing N. is good ground to anchor, and advantageous for getting under way to go over the bar. In foggy weather run no farther in for the land than 15 fathoms, and it is preferable anchoring in light breezes to being drifted about by the currents, which are uncertain. From the bar (or entrance of the Mississippi river) to New-Orleans, is 120 miles. The south end of the Chandeleur Islands lies N. E. by N. 8 leagues distant from the Balize.

To this detail it will not be improper to add the remarks of another experienced navigator. Capt. Bishop having worked from Cape Antonio, to N. N. W. distance 5 leagues, had then 15 fathoms; by which he found that the high land of Cape Buenavista bore from him per account, E. $\frac{1}{2}$ N. distance 22 leagues. He went up the mast head, being the main-top-gallant mast of a ship of 400 tons, and from thence saw the tops of three small hills, which bore as before; and specified Cape Antonio, bearing S. S. E. five leagues at that time. As he was coming home in the fleet of merchantmen, in 1758, he kept working off the west end of the Colorados, with the wind northerly; when on the 18th of July, he was in so as to bring the Little Dry Key, or Black Rock, to bear E. northerly, distance 6 or 7 miles, being then in lat 22° 34'. As the wind was northerly, he stood to the westward, and made up the distance from the Colorados, 14 miles before he lowered the view of the aforesaid hills of Cape Buenavista, to the same resemblance they had when he saw them before. Thus he found that the Colorados Reef was so far to the eastward of his first station, or 9 miles E. of Cape Antonio. Were I to come round to Cape Antonio, says Captain B. I should not choose to come near the Colorados, because I look upon the current as a tide's way, or as one of the points of the river Thames. If you presume to go close by the point, it is a hundred to one if you are not caught in the eddy. On July 25, I just saw the high land of Cape Buenavista from the mast-head bearing east; tried the current, and found it to set N. W. at the rate of a mile an hour; and trying it 2 or 3 miles off the Colorados, it went S. S. W. at the rate of a mile and an half an hour; so that in coming from Cape Antonio, I would not steer north (allowing for the Reefs to the N. N. W. of it) till I was got into the lat. of 23° and then to the eastward; for were you to keep in shore, you would have the S. W. current as far as the eastern point of the Coxcomb's Land.

[New-Orleans having become a place of deposit and great trade, and frequently resorted to by strangers, the Editor of this work deems it his duty to insert the following account current. The original is deposited in the office of a Notary in New-York: comment is unnecessary, and those who have business to transact there may judge for themselves. To give some idea of the whole business, the Editor states, that the charge of Fifty dollars, for deposition taken in Boston, was the business of one hour, and all travelling expenses were paid by him. See the following page.]

Dr.

Mr. *Edmund M. Blunt*, in account current with *Judah Touro*.

Cr.

1808.	
Dec. 14.	To cash paid him this day on account, \$ 100
Feb. 17, 1809.	Do. Mr. Hubertus Roman, in full of his account, 81 65
May 1,	Do. amount of disbursements of Ship Libra, as per acct. 853 54
	Do. do. of cost of Ship Libra's cargo, as per acct. rend. 3945 77
	Do. do. Doct. Rogers' bill against Mr. Ross, 5
	Do. do. C. S. & W. S. Thom's bill for half doz. stockings, 9
	Do. do. one pair boots furnished, do. 9
June 12.	Do. do. am't of Sam. Goodhue's draft on me, dated Cincinnati, April 10, 1809, drawn at sight, fav. S. Jackson, for 400
	Do. do. protest of do. for non-acceptance,* 2
	Do. do. for hire of chaise for taking do. on board brig, 2
	Do. do. S. Goodhue's order fav. Dr. Spencer, for 57
	Do. do. Wm. M. Montgomery's bill for sea stores, &c. furnished Mr. Goodhue, 55 44
	Do. do. James Brown, attorney, as a retaining fee, in case of U. States vs. Ship Libra and others, 250
	Do. do. James Butler, for taking care of barge, &c. 5
	Do. do. my commissions on negotiating Morrison's drafts for \$1400, at 2½ per cent. 35
Feb. 5.	Do. do. James Brown, attorney, for argument in three different terms, in case of U. States vs. Ship Libra and others, and gaining said suit, 500
6.	Do. do. Thomas S. Kennedy, clk. court, for tax of costs of said suit, as per receipt, 59 83½
28.	Do. paid Mezereau, French attorney, for arguing the above suit in French, 250
	Do. do. expenses in taking depositions in Boston, 50
	Do. do. postage of sundry † letters, &c. 6 79
	\$ 6626 53
March 22.	To balance due, paid C. S. & W. S. Thom in full this day, 648

\$ 7274 53

1808.	
Dec.	By cash received from him this day, \$ 500
	Amount of sales of sundries left in my hands by O. Rice, for account do. 687 72
	Do. of my sales of sundries received per Ship Libra, as per sales rendered, 1136 63
	Do. of sundry provisions received from him as per do. 3231 60
	Do. of sundry beef and pork left in my hands by Samuel Goodhue, for account of do. 213 57
	Do. of drafts received from Mr. H. Roman this day, for flour sold by him for James Morrison's draft, dated Fort Adams, Feb. 2, 1809, at 60 days sight, on Mr. Charles Wilkins, Lexington, Kentucky, for 800
	Do. from do. by do. one do. do. for do. do. do. 600
	Cash received for sundry small articles left from his boat, 5

\$ 7274 53

New-Orleans, March 22, 1810. Settled and adjusted the above account, and balance of Six Hundred and Forty-Eight Dollars paid C. S. & W. S. Thom, in full, this day.

Signed,

JUDAH TOURO.

* Why, Mr. Touro, protest a draft for non-acceptance, when, after paying it, you admit a balance due me of 648 dollars. You shall yet have the whole truth. Character often survives life.

† Letters written by E. M. B. to Mr. Touro, requesting a settlement of account, to neither of which was an answer.

Directions for sailing by Crooked Island to Exuma and Providence.

YOU must steer from the north end of Crooked island towards Rum key, which is foul and rocky all round, your course thither being N. N. W. about 14 leagues; from thence you go towards Long Island, which lies west a little southerly, 9 leagues; a W. N. W. course carries you clear of it. Long island is about 18 leagues in length, lying N. W. by N. and S. E. by S. its N. W. end in lat. 23° 30'. About 6 leagues from the N. W. end of Long island to the keys before the Salt pond at Exuma, the course is W. $\frac{1}{2}$ S. distance 8 leagues. Exuma is a great salt island, from which lie an innumerable number of islands and keys extending for 35 leagues to the N. W. and N. W. by N. If you are bound from Exuma to Providence, you must make your way for the Ship's channel passage, which is between Little island and Eleuthera. Your course from Exuma thither is N. N. W. distance about 22 leagues; and so you may proceed to the north-westward along the island Eleuthera; but the nearest cut is over the Great Bahama bank from Exuma. To go this way, your course is W. N. W. or rather N. W. by W. about 35 leagues, which will bring you to the edge of the bank. From hence you may pass over the bank in 2 or 2 $\frac{1}{2}$, and in some holes 3 fathoms water, the distance over the bank being about 10 leagues. You must keep a good look out for fear of sunken rocks, which in some places lie very thick; they are easily seen before you come at them, the water being very clear; and in anchoring there in the night, choose a good sandy birth.

Directions for New-Providence and the Bahama Banks.

NEW-PROVIDENCE, whose town, called Nassau town, is in 25° 3' lat. 77° 22' long. is the chief of all the Bahama islands, and lies E. and W. about 10 leagues and 4 broad. The harbour is on the north side (where there are several keys) between the island and Hog island.

From Providence to Frozen key, the south-easternmost of the Berry islands, the course is about N. W. distance 11 or 12 leagues.

From this key to N. W. passage, or the entrance upon the bank, between the Blackwood bush and Jowiter keys, at the north end of Andross island is about 8 or 9 leagues; as the bank is bound with a reef here, you must pick your way through that; and you may do it easily, as there are several swashes, which though they are narrow, have no less than 11 or 12 feet through. The water being very clear in this part of the world, this picking one's way through a shoal is attended with little or no difficulty.

When you first come upon the bank, you will see some scattered heads of rocks and sponges; but there being no danger except what is very visible, it is sufficient to tell you that by running W. S. W. about 12 or 13 leagues, you will come out a league and a half to the southward of the Riding Rocks on the W. part of the bank, from whence, by the inspection of the chart, you may easily find your way either to Cuba or the Florida shore.

N. B. In coming from the Florida shore this way, by the Riding Rocks, you ought to endeavour to the making of the south-easternmost Berry-island early in the morning, which precaution will give you a great benefit with regard to safety in your run to Providence. You need not be told how great the danger is in coming among shoals and broken land during night.

There are several small harbours on the east part of the Berry islands, where water and other refreshments may be had; but as they are seldom frequented but by the people of Providence, it may be superfluous to say any thing about them.

Something might be said with regard to the passage by Bemini, but it being the shoalest, and the bars to the eastward of Bemini making it very dangerous, no stranger ought to go there without a pilot.

From Providence to the Hole in the wall (sometimes called the Hole in the rock) at the south end of Abaco, the course is N. about 15 leagues.

In the passage from the Hole in the wall, towards the Gulf of Florida, it is necessary to give the west end of the grand Bahama a good birth, not only

on account of its shoals, but for fear, if the wind should hang south-westward, you should be embayed.

The North or Little Bahama bank is little frequented but by whalers and turtles; and, on account of its iron bound reefs, is not to be approached, chiefly on the N. W. end called Maranilla reef; the tide of flood sets an indraught on this end of the bank, from every point of the compass, which renders it dangerous to the last degree.

Directions for vessels bound from the southward to Exuma Salt Pond, situated in the eastward of the Port and harbour of Exuma, from which it is distant between 3 and 4 leagues.

FROM the Bird rock (the northern extremity of Crooked island) to the north end of Long island the course is N. W. distance 26 leagues. Give this a good birth, say 1 or 2 miles, on account of two reefs (easily distinguished) which extend from the two points of the north end. From hence haul up S. W. by S. This course will bring you on soundings, when you will see Hog key and Little Exuma, on both of which are settlements. There are several rocks or small keys ranging with the coast; these may be kept close aboard. When you see the houses distinctly, hoist your colours, and a boat will be sent out to bring the vessel to the anchorage at the Pond. The pond is to the east of the Pigeon key, and Pigeon key bears from the north end of Long island due S. W. by W. distant 9 leagues. Stocking island, which forms the harbour of Exuma, is distinguishable by a beacon on the highest eminence, and this is about 5 or 6 miles to the westward of the eastern entrance of the harbour. The east side of Long island is a bold shore, and wholly free from reefs and sunken rocks. If you go round the north end of Long island towards evening, it may frequently be advisable to come to an anchor, to avoid the effect of currents during the night, which may easily be done on very good ground, after doubling round the north end, any where under the lee of the land for several miles along shore. In this case the eye must direct you, the water being perfectly clear, and the bottom visible.

Sailing directions for the Coast of St. Domingo and Passages near that Island.

THE best direction to make the island of St. Domingo is to run down between the latitudes of $19^{\circ} 20'$ and $19^{\circ} 50'$ taking care never to go farther to the northward. In this track you will make the land, either by Cape Cabron or near Old Cape Francois, and will keep clear of the Silver key, as well as out of the currents of Samana bay.

Cape Samana is of a middling height, and steep at its extremity; you see it at the same time you make Cape Cabron, from which it is distant 3 leagues, nearly S. E. and 6° from the true N.

Cape Cabron is higher and steeper than Samana; the coast is green, and covered with large trees. From Cape Cabron to Old Cape Francois, the coast forms a deep bight, called Scot's bay, covered by a reef, close to which there is a great depth of water. The shore is low, and not seen at any great distance. — You must avoid getting into this bay, and steer direct for the Old cape, which bears W. N. W. $\frac{1}{4}$ W. and is distant $15\frac{1}{2}$ leagues.

The point of the Old cape is low, and stretches out in the form of the snout of a porpoise; at 5 or 6 leagues distance to the N. N. W. of Cape Cabron, in a clear day the Old cape is seen making like an island, whose ends gradually slope into the sea. When you have made Cape Cabron, being 4 or 5 leagues to the eastward of it, you must sail 20 leagues N. W. $\frac{1}{4}$ W. and will pass 5 leagues to the northward of the Old cape; then you steer W. by N. when having run 15 leagues, you see Point Casrouge about 3 leagues distance from you; continue on for 5 leagues, when Isabellica, or Isabella point, will bear S. W. $\frac{1}{4}$ W. distant 4 leagues; having got thus far, you have nothing to fear, and if it was necessary you might keep within half a league of the shore, the coast being very clear.

Being about 4 leagues off to the northward of Old Cape Francois, the Old cape point appears like a porpoise snout projecting to the eastward, and three leagues farther west is a point named Cape la Roche, very much resembling it, and running to the westward. The coast between them lies W. 5° N. and E. 5° S. It is low, rather steep to the sea side, and covered with trees remarkably green.

Towards the point of the Old cape, a mountain is perceived inland, which in clear weather can be seen 15 leagues off, and is a good mark to point out the Old cape.

From Cape la Roche the land bends in for about 2 leagues, and forms a bay pretty deep and covered by reefs. The coast then runs along to the W. and rising in the height to the northward, comes to Point Mascouvry, which bears W. $\frac{1}{2}$ N. from Cape la Roche. This point is high, and its shore bold; it serves as a mark for the small harbour of St. Jago, which is 3 leagues distant from Port Plate.

Port Plate lies 13 leagues from the point of the Old cape, and bears from it W. by N. It is known by a mountain at some distance inland, which appears insulated like the Grange, though not in so precise a manner. The anchorage is good, and the entrance nearly covered with mangrove islots, which you range along, leaving them on the larboard hand when you are within these islots, you anchor in from 17 to 20 fathoms good bottom.

In approaching the coast, you perceive to the westward a huge cape, very high and steep; this is Point Casrouge, which is easily known by its size.

The course in the bight from Port Plate to Point Casrouge is bordered with reefs very close to the shore, and does not admit of any anchorage.

The Old cape and the large point of Casrouge bear from each other W. 18° N. and E. 18° S. 17 leagues. Being about 3 leagues north of Casrouge you see a low point projecting out of the westward, which is remarkable by its having the appearance of being detached from the coast like an island; it is Isabellica or Isabella point, the northernmost of the island of St. Domingo, it bears with the huge Casrouge W. 7° N. and E. 7° S. and is distant from it 7 leagues.

Between these two points is a deep bight called Port Cavaille; then comes Isabella point, which forms a bight to the eastward, where is anchorage for vessels drawing 12 or 13 feet water, and sheltered by the reefs; the entrance is easily known when you have run to it along the reefs.

On the west side of Isabella point is a pretty extensive anchorage, and more easy to gain than that of the east, but the ground in many places is foul; there is from 5 to 7 fathoms water.

From Isabella point to the Grange is 10 leagues; they bear from each other W. 10° S. and E. 10° N.

Being within 4 leagues N. E. $\frac{1}{4}$ E. of Isabella point, if you would pass without the shoal which lies off the Grange (called Haut fond de la Grange) you must steer a few degrees to the northward of west 12 leagues, and then this shoal will bear about south, distant 2 leagues. But should you choose to go in the mid channel, between it and the Grange, you must steer W. by S. $\frac{1}{2}$ S. and after you have run 12 leagues it will remain to the northward of you about a league.

The course between is bordered with reefs, among which the entrances are narrow and dangerous.

West of Isabella Point is Point la Roche, or rocky point, to the westward of which is an anchorage for large vessels, which being very bad ought only to be used in case of necessity.

To gain this anchorage you must haul very close to Point la Roche, and anchor as soon as you are in 12 fathoms, white bottom.

This anchorage which is sheltered by the reefs that are N. N. W. of Point la Roche, lies 3 leagues from Isabella point.

The Grange point is known by the mountain of that name, and is seen at a great distance, before you perceive the seacoast. This mountain which is insulated, and stands upon a low peninsula, has very much the appearance of the

roof of a barn, from which it takes its name, Grange. The N. W. part of it is bold, and you may approach it within a quarter of a league, or even less.

On the N. N. E. part of it lies the Haut fond, 2 leagues off; it is a white shoal of not more than 2 cables' length each way; there is a small spot on the shoal with only 25 feet water, on which the Ville de Paris struck in 1731. Close to it is 6 fathoms, then 10 and 15, and suddenly no ground.

The white ground has generally scattered rocks, so that it cannot be ascertained whether there may not be some spots on it even with less than 25 feet. When you are on this shoal, the Grange bears true S. 20° W. you will then have the islots of Monte Christ open of each other, the westernmost of them bearing true S. 30' W.

There is an anchorage under the Grange; to take it you must range along the islot of Monte Christ, and let go your anchor as soon as you have 6 fathoms, but under the south side of the westernmost islot you may anchor farther in 4 fathoms. From the Grange you see the mountains above Cape Francois.

To avoid the shoals off the Sandy islot, which is one of the Seven brothers, when you are two leagues to the northward of the Grange, steer W. or W. by S. 3 or 4 leagues; then you may haul up half a point more to the southward, till you see Morne (hummock) Picolet, towards which you must sail as soon as you can perceive it. The Grange and the Hummock lie from each other E. 15° N. and W. 15° S.

To the westward of the Grange are the Seven brothers, which are low islots, and most of them covered with mangroves. There is a channel between them and the coast of St. Domingo, which vessels sometimes use going to Manchineel bay, but it is very shoal and narrow; there are also channels between these islots, but in white grounds, which are always uneven and dangerous.

If you go into Manchineel bay, you must, at one league to the northward of the Grange, steer W. 7° S. and as soon as you have doubled the westernmost islot, which has a white shoal running off half a league from its W. N. W. part, you will see Point Icagua, a low point covered with trees, and which forms the entrance of Manchineel bay. You run close to the shoal off the Sandy islot, already mentioned, which has not less than 6 fathoms water near its edge; then you must haul up, and run about half a league from the islot for Icagua point, so as to pass pretty close to it, when you come to anchor, as far within as you choose, from 8 to 10 fathoms: the ground in the bay being good and clean.

From Manchineel bay to Fort Dauphin bay, is 2 leagues S. W. $\frac{1}{4}$ W. The coast is clear, and you see the white ground very plain.

From Fort Dauphin to the Cape the coast is surrounded by reefs, on the edge of which is a great depth of water.

These reefs have some passages to admit ships, through the white grounds, to come in and anchor before the main land; but there are so many rocks and shoals that it is almost impossible to enter without a pilot well acquainted.

Caracol passage is the least difficult; the channel is wide, and the losing the white ground shows it plain enough; but no vessels drawing more than 14 feet water ought to attempt it. If you go in you must anchor as soon as you are within the reef, as the water shoals very quick in shore. There is a lime-kiln that serves as a mark.

The town of Cape Francois is under Picolet Mount; there is no danger running in for Picolet point, if you keep it bearing from S. S. W. to S. S. E. Should you not have time to wait for a pilot you must range along Picolet point, having it about S. or S. S. W. at the distance of a short musket shot; you will then perceive a white flag placed on the north part of a reef, and must steer S. E. or S. E. $\frac{1}{4}$ E. so as to leave the white flag on your larboard hand; taking care to have sufficient quantity of sail out, as you will be forced to haul up to weather a red flag which is left on the starboard hand, about half a cable distant; when you may push on for the middle of the town, and anchor where you please.

From Picolet point to Honorat point, which forms the entrance of Port Francois, $1\frac{1}{2}$ league to the westward, there is no place of shelter. A small reef runs from this latter point to the west 100 fathoms out, close to which is 3 fathoms;

you range along this point, then steer S. S. E. till you have run two cables' length, and then anchor in 8 or 10 fathoms, oozy sand; the fort is bearing E. S. E. true north, and you will be distant from the shore a cable and a half.

This harbour is very small, having not more than 400 fathoms from the north to the south point; the bottom is good, and you are free from the breezes; besides it is a convenient place, should a gale of wind prevent your getting into Cape Francois; and a good shelter for frigates, should a superior force make it necessary.

There are reefs off the south point that extend as far as the Bay of Accul, without leaving any practicable passage. This bay is very extensive, and covered on the N. and N. N. E. parts by Rat island, a sandy islot, which terminates the reefs extending from Port Francois. The N. N. W. part of the bay is sheltered by breakers, and several shoals, through which there are channels, but difficult and very narrow.

Rat island lies 5 miles W. from Port Francois, so that the entrance of Accul bay is 10 miles from Morne Picolet.

In leaving Port Francois to go to the Bay of Accul, you must get to the northward, to double a white shoal, on which there are in some places but 4 fathoms. Coming from the northward, or the eastward, you must stand in for Rat island, or Sandy islot, steering about S. S. W. When you get within a league of the Sandy islot, you will plainly see the point of the Three Mary's and soon after, in the inside of the bay, a low point with a large tuft of trees on it, called Point Abely. You must keep the islot of the Three Mary's which are near the large point of that name, in one with the tuft of trees. Standing in 10 fathoms ooze, and steering a little to the starboard or larboard as the water shoals on either side, you are then in the middle of the channel, which is not more than a cable's length in width: You have on each side of it a white shoal, where you will not find less than four fathoms, except you run too far on which you must avoid.

Having run two cables' length in this channel, it widens; and when you have brought the Sandy islot, which is left on the larboard hand, E. by S. true north, you may range along the western reef, close to which is 16 fathoms.

You continue to run on for the point of the Three Mary's till you bring Rat island, which you have left on the starboard hand, to bear N. W. when you may anchor in 14 or 18 fathoms water; all the shoals which are within show themselves very plain.

The middle channel appears to be narrower than that of the sandy islot, when in reality it is not; since you have 10 or 12 fathoms water close to the reefs, which all show themselves very plain.

To enter by this channel you must bring Rat island to bear S. or S. by E. true north; as you approach it you will see the point of the Three Mary's which you must open to the westward of Rat island; making use of the lead all the while, and never coming on a lesser depth than nine fathoms. When you are a quarter of a league from Rat island, steer S. E. to pass, at a cable's length, two reefs on your larboard side, which ought to be ranged as close as possible, to avoid that which lies off the east end of Rat island, and which you must leave on the starboard hand. Having run S. E. two cables' length, you are within, when you may steer for Three Mary's point.

If you want to get out by this passage, you must as soon as you have doubled the reef of Rat island, and are in the channel, steer between Point Limbe and the island of Tortoga, till you have brought Rat island open its own length to the E. of the Three Mary's; then steer N. W. and you will not have less than 9 fathoms, and often 15 or 16. This passage is shorter and better than the first; besides, if you should be taken a-back, you may anchor immediately, the ground being hard mud and good hold, and the water very smooth.

The third passage, or Limbe passage, is the best of all, being so broad that ships may turn up it; it lies between the main land of St. Domingo and the breakers to the W. of Rat island, which extends to within half a league of Point league. To enter by this passage, you run for the island of Limbe till you bring league point to bear S.; it is known by the steep rocks which form it, and

is the only high point seen from the Limbe. Steering south, true north, in coming from the eastward, you see a shoal, which is called Coqueciveill, at the foot of which is 5 fathoms; steer S. E. in the mid-channel, between it and Point Icague, and you will have from 10 to 15 fathoms water; should you want to stop to the westward of the Three Mary's you steer for the Morne Rouge, or Red hummock, and may anchor in from 12 to 13 fathoms.

If you are turning through this passage be not afraid of coming near the rocks on the shoal side; you may go within a cable's length of any thing you see, the water being very deep. Off the low point of the Great Boucan are some breakers, which always show, and have 8 or 10 fathoms close to them, when you get that point to bear S. S. W. by compass, you are within, and may anchor any where. If you should wish to go farther up the bay, after you are past the Three Mary's you steer for the Morne Rouge, and range it within half a cable's length, as a shoal is lying between it and Point Abely, which is opposite to it. As soon as you have passed Morne Rouge you will see Lombard bay, in which you may anchor as near the shore as you please in 7 fathoms. In following this tract you will find all over the bay from 10 to 15 fathoms oozy ground. There is a shoal half a mile S. S. W. of the Three Mary's rocks, so small as to render it difficult to be found; but is easily avoided if you are on that side of the bay, by standing over towards Abely into the middle of the roadstead, and then steer for Morne Rouge.

This bay is an excellent shelter in time of war for frigates, and even for line of battle ships. The water is good, and very clear near the Lime kiln, on the N. side of the Morne Rouge; the watering is now very difficult, but it might, without much trouble, be made very convenient. You must not go higher up the bay than Lombard point, which is to the southward of Morne Rouge, as there are several dangerous shoals very steep too.

From the bay of Accul the coast runs W. N. W. to the island of Limbe; then a little farther to the island Margot, which is of a round form, and points out Anse Chouchoux bay, 2 miles to the westward of it 4 leagues from Morne au Diable, or the Devil's hummock, at the entrance of Fort Francois, and 6 leagues W. 3' N. true north, of Picolet. The bottom is good all over, and from 6 to 7 fathoms. To enter it you must press very close to the E. point, where you have 6 fathoms close to the shore. As soon as you are within, you drop your anchor, for you are almost taken a-back by the return of the wind, and by the calm which prevails in this bay, however strong the sea breeze may be without. A frigate might anchor in 5 fathoms water to the westward of two small houses, which you will see in doubling the E. point; you may, independent of Margot round islot, know Chouchoux bay at a distance, by a large white streak which runs down a hill half a mile W. of the entrance.

West of Chouchoux bay is a very small bay called Salt river, but it can only be used by small craft.

From Chouchoux bay the coast runs W. 28° N. one league, when you come to another bay called the bottom of the Grange, which is to the eastward of Point Palmist and known by a chain of rocks that extend near a league, almost to the huge point of Icague. This bay is small, and the ground very good, with 6 fathoms near the shore, but it is not so well sheltered as Chouchoux. To enter, you keep the E. point on board, and anchor in 7 fathoms, in the middle of the bay, oozy sand.

At a short league from the bay is Icague point, which is round and formed by several other points. You must not come near the land to the eastward of this point, on account of the rocks already mentioned; some of which are entirely under water, and run out into the sea half a league.

From Point Palmist the coast runs W. ¼ N. to the Carenage point of Port Paix, which is the northernmost headland of this part of the coast. It is distant from Palmist 4 leagues, and is often, at a distance, taken for it; the coast between the two points is very clear and safe.

The channel of Tortugas island begins at Point Palmist, and terminates N. and S. nearly abreast of Moustique bay; being narrowest at the Carenage point.

It is very safe, and ships may turn up within. And in general, it is a great advantage when the current runs up, to pass through this channel when you intend to go to the windward of the island. The island is of a moderate height, it is 6 leagues long, and one broad; all the north side is iron bound and steep too. South of the west point is a sandy bay, where there is good anchorage; the south side is almost every where bordered with shoals surrounded by reefs.

There is an anchorage opposite to some huts in the middle of the island, called La Valee. The only good anchorage, which must be for ships drawing from 14 to 16 feet water, is that of Basse Terre, within the reef $1\frac{1}{2}$ league from the east point; the passage is narrow, but easy to fetch. You must keep the weather reefs on board, leaving them on the starboard hand; and steer N. N. W. and N. to double the reefs you leave on the larboard hand; do not be afraid of coming near the land, and anchor in good ground as soon as you have brought the lee reef to bear S. W. Large ships may come to an anchor outside the reef upon white ground, a mile to leeward of Basse Terre.

To the eastward of Basse Terre, towards Portugal point, there are several bays or coves, in which boats or schooners may anchor, but nothing of a larger size.

The channel between this island and St. Domingo is at the E. end, $2\frac{1}{4}$ leagues broad. Opposite Carenage point it is but 2 leagues, and a little farther it widens to $2\frac{1}{2}$ or 3 leagues. Ships turning up should stand as close as possible to both shores, as the wind and current always favour them most in shore. You may stand safely within a mile, all the dangers being visible. As there are several bays on each side, the setting of the current is neither uniform nor in the same direction; you will sometimes see it run a hundred different ways, and sometimes in the middle of the channel it will run contrary to the current in shore. Should there be a westerly current, which is seldom the case, and never but in the summer time, it is then so strong that it would be folly to attempt the passage. Ships should then stand 6 or 7 leagues to the northward of Tortugas, and they will work up very easily.

Two miles from Point Carenage is the fort of Port Paix, off which is a shoal of a cable's length with 13 fathoms close to it. The anchorage of Port Paix is of great depth; though the bay is very small, you may anchor off the north part of the town, in 12 or 13 fathoms oozy sand, about a cable and a half's length from the shore.

From Port Paix the coast runs nearly in a right line to Moustique bay, which is 4 leagues to the westward; it is an iron-bound shore and very safe.

Moustique bay, though very small, may shelter a ship in distress; there is a battery on the east point, which you leave on the larboard hand, and as soon as you have doubled it, let go your anchor in 12 or 15 fathoms, a cable and a half from the shore. In some parts of the bay the ground is uneven and rocky; in other parts it is very good. Be careful not to let go your anchor till you have sounded, as at the entrance of the bay there is no ground at 40 fathoms; you must at least bring the battery to bear N. N. E. Off the west point is a shoal, which runs in the bay a cable's length.

Port-a-L'Ecu is $1\frac{1}{2}$ league to the westward of Moustique, and the shore between them is rocky, with deep water close to it. The anchorage is better here, but not so easy for large ships to come at as at Moustique bay, on account of a reef and a shoal, with only 3 fathoms water, which runs off the east point for two cables' length, and which rounds the point to the inside of the bay. To come to this anchorage you give the shoal on the east point a small berth on the larboard hand; then you must haul your wind, ranging along the eastern reef, and anchor towards the middle of the bay in from 8 to 10 fathoms, oozy bottom, the house bearing S. S. W. true north. You may go in towards the house in the cod of the bay, as near as 4 fathoms. The S. W. coast is steep too and safe, and you may stand close into the white ground, which is very near the shore.

From the Port-a-L'Ecu the coast runs W. 5° N. $2\frac{1}{4}$ leagues to the point of Petit Jean Rabel; and 2 miles more to the eastward is Jean Rabel point, which

forms the anchorage of that name. It is good, safe, and very easy to fetch, but you must not be afraid of going near the eastern reef, at the foot of which you have 10 fathoms. The anchorage for large ships is two cables' length from the eastern breakers, care being taken not to shut in the two points on that side. You will anchor in 15 fathoms. You may go further in, (as far as 8 fathoms) but it is not safe, as the water shoals suddenly, and the ground is not so clean inside. The debarcadair, or landing place, is a very good one, even if there should be a swell; it is under the fort, which is exceedingly well placed, and makes it a very good retreat from an enemy. The ground holds well, and the only winds to fear here are the N. or N. W.

If you are to the N. W. of Jean Rabel, at a short league distance from the land, and have half the island of Tortuga open with the point, you will find 60 fathoms water oozy ground, and a little farther out 80 fathoms.

From Jean Rabel, the coast forms a great bight to the southward as far as the peninsula, which lies 13 miles W. S. W. of it. All the shore between is rocky, and does not offer any shelter. At all times the currents here are very perceptible near the shore, and generally set on it; at two leagues in the offing they are less so, and run to the N. E.; in approaching the peninsula they become much stronger, and commonly set towards the north.

The west point of this peninsula forms the north part of the entrance of St. Nicholas Mole. The bay is large and spacious at its entrance, but grows narrow towards the town, which you descry as soon as you have doubled the cape. You may stand very close to both shores; but it is advisable to allow on the south side more room for wearing than on the north side, as there is no anchoring ground, which you have on the north side, though very near the shore. You anchor before the town, and under the barracks, in 15 or 13 fathoms, sandy bottom. In going in you must be prepared against the puffs or squalls which come down from the land, with such violence as to endanger the masts.

In going out of Mole St. Nicholas you see to the southward the point of the mole, which forms its entrance, and 2 miles to the south of it is Le Cap-a-foux, or Fool's cape; it lies at the western extremity of a large point, which rounds into the S. S. E. 7 miles, and as far as Pearl point.

Fool's cape is easily known by a small rock which lies at its pitch; the shore is steep without any shelter, but it is generally a calm here. The currents in shore set to the northward, and 2 leagues in the offing to the W. and W. S. W.

From Pearl point the coast runs S. E. one league, and then E. S. E. to the point of the Platform, which is $3\frac{1}{2}$ leagues farther. This point is easily distinguished as well by its flat form, as by its being the southernmost of this part of the island. The anchorage is before a small sandy cove, at the bottom of which some houses are seen. You anchor near the shore in 8 or 10 fathoms weedy bottom.

From the point of the Platform to Point la Pierre, which is at the west entrance of the Gonaives, or Gonaheeves, the coast trenches in 2 leagues to the north, and goes rounding to Port a Pimeno, Pimento harbour, from whence it runs to the south, to join Point a Pierre.

This point is high and steep, and bears with the Platform point E. 18° S. and W. 18° N. true north, distant $10\frac{1}{2}$ leagues.

All this coast is safe, and may be ranged very near; there is anchorage, even for large ships, at Hene bay, and at Port Piment, but it ought to be used only in case of necessity. In the winter months there are gales of wind almost every night coming from the S. E. some of which are violent; and without you have business on this part of the coast, it is best to stand off 2 or 3 leagues, so that you may, with any wind, keep to the westward.

The bay of Gonaheeves, as the French pronounce it, is very large and fine, the anchorage excellent, and the entrance very easy. You range along the shore half a league, or 2 miles distance, steering a few degrees to the northward of east, and let go your anchor in 6 or 10 fathoms, oozy. You will find from the entrance under Gonaheeve point, which is low, and one mile east of Point Pierre, 15 and 12 fathoms; the water decreases as you get into the bay. When you

are a good half league from the land, and 2 miles from the debarcadair, (or landing place) you will have 6 fathoms. After you have doubled Gonaheevé point, leaving it on your larboard hand, you will see Fort Castries on a point of land which you must not approach too near, as there is a key that lies about a mile south of the point.

From Point la Pierre to Cape St. Marc is 8 leagues. They bear from each other S. by W. and N. by E. true north, which is likewise the direction of the coast.

One league to the north of St. Marc bay, is a low point, which appears at a distance like an island; it forms a cape that runs out a mile westward of the bearings above given, and is called La point du morne au diable, or the Devil's hummock point; it shows the mouth of the River Artibonite, which falls into the sea, 3 miles northward of the point. There is an anchorage the whole length of the coast for small vessels only.

Cape St. Marc is high, and of a round form; you descry at a great distance the hillock which forms it, and stands only one mile from the seaside.

The opening of Bay St. Marc lies to the north of the cape, it extends one league within the land, and the water in it has a great depth. Ships anchor in the bottom of that bay under the town, in 15 or 18 fathoms water; small vessels may come into less water, but they will be very near the shore. Platform point to the north, the coast from the Gonaheevés to Cape St. Marc to the E. and the coast north of Gonaheevés island to the south, form the Gulf of Gonaheevés, or Gonaives.

Cape St. Marc is the southernmost point, and with the N. E. point of Gonaive island, forms the entrance of St. Marc's channel.

When you have doubled Fool's cape, and are 2 leagues west of Pearl point, if you are bound to St. Marc or to Port au Prince, you must steer for St. Marc's channel, which will be a S. E. course. After having run 16 leagues you will be W. of Cape St. Marc, when you will steer for it.

But if you are going to Port au Prince you will continue your course S. E. true north till you make the Arcadins; or if it should be night, after having run 4 or 5 leagues, steer S. S. E. $\frac{1}{2}$ E. to pass in the mid-channel, between the Arcadins and the E. point of Gonaheevés' island. Having run 3 leagues in this track, steer S. E. $\frac{1}{4}$ E. $4\frac{1}{2}$ leagues to make Point Lamentin, which is on the S. side. You must range this coast pretty near, without fear, to avoid the shoals of Sandy islot, which lies a small league to the northward of Point Lamentin. If you should pass this point in the night you would do right, after you have run a mile or half a league, to anchor; you will find 12 or 18 fathoms water, the ground good, and the water always smooth.

Sometimes you are forced to turn in this channel, but you must not go so near the Gonave as the St. Domingo side, which is a safe shore, that may be approached any where within half a league.

The Arcadins are not much to be feared; a shoal stretches out from them a mile, or half a league at most, with five or six fathoms on it; on the edge of the west and S. W. sides you will have from 12 to 15 fathoms, corally ground; in the hurricane months you are almost sure to have every night violent storms.

The best method to follow, if you are caught in the gale, will be to lay to sometimes on one tack, and then on the other, as well to avoid the force of the wind, as the shoals of the Little Gonave. If you can foresee the gale, it will be better to get an anchorage on the St. Domingo side, near Archahie point, or on the N. of Leogane, to the S. E. of the Little Gonave, as you have soundings from the White grounds of Little Gonave as far as Leogane.

You may pass likewise between the Arcadins and St. Domingo; the channel is 5 miles wide, and in the middle of it you will never have less than 10 fathoms. The water decreases as you go towards the Arcadins, or on the coast side. One mile from the Arcadins you will have 6 or 8 fathoms water, corally ground; at the same distance from the St. Domingo shore, the like depth, but with a muddy bottom.

The greatest length of Gonave island is $10\frac{1}{2}$ leagues E. S. E. and N. N. W. its breadth, which is very regular, is 2 leagues from N. to S.

The N. E. point is low; there is a reef which runs out to the eastward of it half a league, and then extends along shore to the southward of the same distance from the land.

The east point is steep and high, without any white grounds, but you fall in soon after with the white grounds of the Little Gonave, which come within a quarter of a league of the point. These do not extend much to the northward of the east point of the Little Gonave, but they project a league to the eastward.

S. E. of the Little Gonave is another white shoal, separate from the other about half a mile; its outward extremity lies 2 leagues from the island, and there is no danger; for although the bottom appears very white, you will have on it from 7 to 12 fathoms. A large ship ought not to go within $1\frac{1}{4}$ league of the Little Gonave.

From the Little Gonave to the W. point of the Great Gonave, the coast is clear and safe.

The north side of this island is also safe and clear, having only one white ground, which extends half a league from Point Bahama, situated nearly in the middle of the island.

Leaving Port au Prince, and bound to the Petit Goave, you range along the south coast, at the distance of 1 or 2 miles; all this shore is bold and safe, as far as Point Leogane.

From point Lamentin to Leogane point there is no anchorage; but you find a good bottom for anchoring between the latter point and the anchorage off the town of Leogane.

After you have passed Leogane you must steer for the Tapion or Hummock of Petit Guave; and come in the bay, leaving on your larboard hand a little island that lies off the coast N. of the town, and to the W. S. W. of which you may anchor.

Petit Goave is 9 leagues from Port au Prince, but as you are forced to double Point Leogane, your run is near 12 leagues.

From the Hummock of Petit Guave to the Hummock of Miragoane, the coast runs W. by N. 5° N. 8 miles, then W. by S. $1\frac{1}{2}$ league to the careening island of Miragoane bay.

Two leagues and three quarters N. of this islot, is the eastern extremity of the white ground or shoal, which joins the reef called Rochelois.

To anchor at Miragoane, you come within a mile of the Careening island, when you perceive a small town at the foot of a mountain, and some mangrove islands to the westward. You keep the mid-channel between the first islot and the shore, where the village is situated, and come to an anchor, within from 8 to 18 fathoms, sandy bottom. This anchorage ought not to be taken without a pilot; the channel is not more than a cable's length in width, and you must anchor as soon as you are within.

From Miragoane careening island the coast bends in, and forms the bay of that name. It is shut in on the N. by Frigate island, off which runs a white shoal half a league to the eastward, and nearly N. to the anchorage at Miragoane, which obliges you, in coming in or going out, to keep the island shore very close aboard. From this place the coast runs W. as far as the village of Rochelois, which is situated at the foot of a large hummock.

North 3° east of this village, 3 leagues, lies the reef of Rochelois, which is not of very great extent; some of the rocks are out of water, and you may go pretty near them on the N. and S. sides. On the W. side is a white shoal, which runs off 2 miles; on the edge of that shoal is 4 or 5 fathoms.

One league east of these breakers is a rocky bottom, but hardly visible; having from 6 to 8 fathoms water; so that there is nothing to fear but the rocks themselves, whose extent is only a cable's length; they lie 9 miles from the S. shore, and 10 miles from the Gonave. The channel on the N. side being as bold as that on the S. side, and the south coast being also very clear, it is easy to avoid those rocks.

From the village of Rochelois to the entrance of the Bay of Baradaïres, the coast runs W. by N. 5 leagues. Baradaïres bay is formed towards the east by Roitelet's point, and towards the west by the east extreme of the Bec du Morsouin, or the Porpoise snout; these points bear from each other N. N. W. and S. S. E. $1\frac{1}{4}$ league. To anchor in this bay you keep one third nearer the Porpoise snout than you do the other point, ranging along the peninsula of the Snout, and come into from 8 to 10 fathoms; you have a great depth of water in the middle of the bay, which is of great extent, but there are several weedy shoals, which ought to prevent your going in without a pilot who is well acquainted.

The north point of the Porpoise snout, and the north part of Grand Caymite island, bearing W. N. W. and E. S. E. and are distant $4\frac{1}{2}$ leagues.

The coast west of the peninsula of the Snout, bends in to the south, and forms a bight of 3 leagues; then rounding out a little it runs W. N. W. 10 leagues, as far as Jeremie. This bight, and Great Caymite island, form a large bay, named Caymite bay, where there is a very good anchorage for all sorts of vessels. You may come to it without a pilot, and anchor under the island, in what depth you choose. You may also proceed to Flamand's bay, near the peninsula, ranging along the peninsula side, and anchor opposite a sandy beach, in what depth you please.

The bay of Caymites presents several very fine anchorages, very easy to come at, with the assistance of the lead alone, but there is not a good passage between the Grand Caymite and the shore: and you will not find more than 13 feet water upon the white shoals of the Little Caymite, or of Foucaua Islot; and then there are several coral rocks which rise within 2 or 3 feet of the surface of the water, so that no vessel, but very small ones, ever attempt it without a pilot. These white shoals extend 3 leagues W. S. W. off the Grand Caymite.

From the north part of the Grand Caymite to Salt river point, which is $1\frac{1}{2}$ league W. N. W. of point Jeremie, is $9\frac{1}{2}$ leagues; this Salt river point is the northernmost of all from Port au Prince; under point Jeremie is the village of that name, whose anchorage is very small and not proper for large ships; schooners and small vessels may anchor within the reef, but no ship which draws upwards of 12 or 14 feet should ever anchor here, except in case of necessity; there is no shelter for her; in short it is a bad anchorage, and which you must avoid during the north winds.

From Salt river point to Cape Dame Maria, or Donna Maria, the coast runs W. by S. 5° S. $4\frac{1}{2}$ leagues.

All this shore is safe and bold within $\frac{1}{4}$ league; it does not present any shelter, though, in case of necessity, you might anchor in Clair bay, which is $1\frac{1}{2}$ league from Salt river. This bay, or rather cove, is so very small, that 2 ships, 100 feet long, would be puzzled to swing clear of each other; it can only serve as a shelter to very small vessels, and is easily discovered by keeping along shore.

As soon as you descry Cape Dame Maria by the false cape of that name, and are $\frac{1}{2}$ league distant from it, you will strike soundings from 15 to 18 fathoms, and you may range along this cape at $\frac{1}{4}$ league distance, in from 8 to 12 fathoms, weedy bottom.

Should you want to anchor in Dame Maria bay, you must keep the shore on board, steering about S. E. the winds being generally against, and with your lead you come to an anchor W. N. W. off a large white tapion, or billock, on which stands a battery, and within a musket shot of which you will find 5 fathoms. There is bottom all over this bay; a mile from the shore you will have from 4 to 6 fathoms, and at 2 miles from 6 to 10. You are sheltered from the winds between the N. and S. passing by the E. notwithstanding which, ships that lie in 8 or 10 fathoms will swell, if there is a fresh breeze without.

From Cape Dame Maria the coast runs S. by W. $\frac{1}{4}$ W. 5 leagues to Point des Irois, and forms, at that distance, several bays and coves, where vessels may anchor. There are no shoals, and the ground increases to the shore.

To the S. S. W. of Cape Dame Maria, $2\frac{1}{2}$ leagues distance, and about half a league off Minister's point, are some rocks, called La Baleine, or the Whale;

these rocks are above water, and surrounded with a white shoal which does not extend more than half a cable's length from them, and on which are four fathoms; a ship can sail between it and the shore; in the mid-channel she will have 6 fathoms, and may go as close as she pleases to take them on the off side; the sea always breaks on this shoal.

One league and a half from the Whale lies Pierre Joseph's islot, where a convoy might anchor; the anchorage is very good and easy; and large ships anchor to the S. W. of the islot.

All along this W. part of the coast, you have ground two leagues from the shore: the depth gradually increasing as you leave the land, so that in general you will find 4 or 5 fathoms, at 1 mile distance; 10 or 12 at 2 miles; and regularly from 15 to 17, at 3 miles; when you get into 30 fathoms, you will lose soundings suddenly.

Point des Irois, or Irish point, as the English sailors call it, is the westernmost point of St. Domingo island; it is not very high, though remarkable from a small hummock on its extremity, which appears detached from the coast, and makes like an island; this point forms the north part of Bay des Irois, or Irish bay; you may range very close to the land on the north side of the bay, there being from 9 to 18 fathoms touching the shore.

The anchorage is to the N. W. of a Black rock, which is seen a little way to the southward of the town; it is in from 9 to 10 fathoms, shelly. You may anchor likewise to the southward of the rocky islot, N. N. W. of a small hummock toward the middle of the bay; the depth is here from 8 to 9 fathoms, sand and muddy ground.

The bay is exposed to southerly winds; there is always a great sea within, and the debarcadaire is of course a bad one. It is situated in the eddy of the currents, which set to the northward on the W. side, and to the S. E. on the E. coast. Besides, the sea in the offing is alternately agitated with violence by the N. E. and E. breezes which prevail on the west coast, and by the S. E. winds that blow on the S. coast. Irish bay is terminated to the S. by Cape Carcasse, which, with Fool's Cape, forms a large roundish point, whose end is at Cape Tiburon.

These three capes seen at a distance, form but one, which is called Cape Tiburon, and is very easily known by its form and height. It is a large mountain, very lofty, whose top is rounded like the back of a dosser, and comes gradually down towards the sea.

Cape Tiburon, properly speaking, is 4 miles S. 30° E. of Irish point, and forms the entrance of Tiburon bay, which is to the eastward of it. You will get no ground at 50 fathoms, 2 cables' length from the coast, between Cape Carcasse and very near Cape Tiburon; but off the latter, at that distance, you will have from 24 to 30 fathoms, and a little further out quickly lose soundings.

Tiburon bay is sheltered on the E. and partly on the S. by Point Burgos, off which runs a reef a cable's length out; you anchor to the northward of this point $\frac{1}{4}$ league from the town, in 7 or 8 fathoms, oozy bottom; in most parts of the bay the ground is clear and good, if you do not approach too near Point Burgos, where the bottom is rocky. You have nothing to fear here but southerly winds; and small vessels can get so close to the shore, in 3 or 4 fathoms, as to make Point Burgos shelter them; with all other winds the water is smooth, the landing place is very easy; and ships may with great facility get excellent water.

From Cape Tiburon to Point Burgos is a short league; they bear from each other E. S. E. 5° S. and W. N. W. 5° N.

From Point Burgos to a low point called Old Boucand, the coast runs E. S. E. 5° S. 4 miles. This shore is not so safe as the other part of the coast, as there are some white shoals and breakers off Aigenettes point, but which do not extend more than half a league at most.

From Old Boucand point, the coast runs to the N. E. $1\frac{1}{2}$ league, and then rounds to form what is called Le Fond des Anglois, the English bottom; all this part is safe, but does not offer any good anchorage; indeed a ship may anchor very near the land, but will every where be exposed to the sea breezes.

From the Fond des Anglois, the coast begins to run to the E. S. E. 4 miles to a large hummock called Les Cherdonniers, and which is very remarkable at a distance ; then after having formed a bight of half a league it goes S. S. E. $6\frac{1}{2}$ leagues to a point called Point a Gravois forming in that space several little coves, which cannot be considered as anchorages. The only one of tolerable size is Port Salut, which is a short league N. N. W. of Point a Gravois.

Point a Gravois is low and difficult to distinguish, people often confounding it with that of Port Salut. From it the coast is not very high, and runs E. 2° N. 3 leagues to Point Abacou, which is low at its extremity, though it rises a little in shore ; this is formed by two points of reefs, stretching $\frac{1}{4}$ of a league into the sea. You may pass without fear at half a league distance, and will have no ground at 40 fathoms. At this point begins the Bay of the Cayes. The coast, after having doubled Abacou, runs to the N. N. W. then to the N. W. and afterwards rounds towards the E. till you come to the town of the Cayes, which bears from Abacou N. by E. 2° E. $3\frac{1}{2}$ leagues.

The S. W. point of the Isle a Vache, or Cow island, forms the east side or the entrance of this great bay, it bears E. by N. from Point Abacou 7 miles. In the mid-channel between Abacou, and the west side of Isle a Vache, you will have 25 fathoms, which depth decreases as you approach the island. Off the S. W. part of the island there is a white ground, on which you will have from 5 to 7 fathoms, $1\frac{1}{2}$ mile from the shore, rocky ; but as you approach Diamond point, you will not find the white ground more than $\frac{1}{4}$ league, and the bottom is good in 6 and 7 fathoms. When you bring Diamond point to bear E. you will have soundings all the way across. There is good anchorage to the westward of Diamond point, or farther to the northward of it, opposite a sandy cove, from 6 to 7 fathoms muddy sand.

To go into the Cayes, you range along the N. W. point of Isle a Vache, in 6 fathoms water ; and you steer nearly N. by E. to make on your starboard hand the white hummocks of Cavillon. You will then leave on the larboard hand a large reef, surrounded with a white shoal, which takes up almost all the middle of the bay. When you have brought the town to bear N. W. $\frac{1}{4}$ W. you must haul up two points to windward of the town, standing towards the Company's islot, where you may anchor if you do not mean to go into the road ; if you do, you shorten sail a mile from the shore, and wait for a pilot. The channel is $\frac{2}{3}$ of a cable in breadth. Ships drawing more than 13 feet water cannot go in ; those of 15 and 17 feet water always anchor at Chateaudin, $\frac{1}{2}$ a league to the westward, and which is separated by shoals from the port.

To anchor in the Road of Chateaudin (coming from the mooring of the Isle a Vache) W. or W. N. W. off Diamond point, in 8 or 11 fathoms, you must steer directly for Torbec, which is a small town very easily distinguished in the cod of the bay ; this track will be about N. W. When you are within about two miles of the shore, you will discover a little white flag, which is on a shoal ; you double it to the westward at about half a cable's length, leaving it on the starboard hand, when you have brought it to bear south, you steer along the coast for the road of Chateaudin, and anchor in 6 or 7 fathoms, mud. In all this passage, if you keep the proper channel, you cannot have less than from 7 to 9 fathoms, and often 12 and 16, muddy ground.

The Isle a Vache is 3 leagues in the greatest length, and its breadth not more than one ; it is hilly, and at the distance of 6 or 7 leagues, appears like a heap of small islands. From the N. W. point, in going to that of the S. W. the coast is safe, the water shoaling gradually as you come near the land. Off the S. W. end is the white shoal already mentioned, to which ships coming from the eastward must give a birth. The south side is bold : and along a whole length, a reef runs at a cable's length distance, to the east point of which is a white shoal extending to another reef, laying off the Point of la Folle, to the northward.

From the Point of La Folle, to the N. W. point on the north side of the island there is a chain of shoals and islands, amongst which are some narrow passages.

On the north side of the island is the bay of Feret, where there is a very good anchorage ; but you must be exceedingly well acquainted before you can

attempt it, as you will in many places find only 2 and 3 fathoms, if you are not in the channel.

The northernmost of these islands, Caye de l'Eau, or Water key, is easily known by a large tuft of large trees, one of which is considerably higher than the rest ; this island is bold.

At some distance from it, on the north side, there is a good anchorage from 15 to 30 fathoms.

From the Cayes, the coast runs a league E. N. E. as far as the Tapion, or hummock of Cavaillon, which forms the entrance of the bay of that name ; half way between is the Company's island, where you anchor if you do not choose to go into the harbour of the Cayes.

You must not go too close to the S. E. part of the Tapions of Cavaillon, as there is a shoal with only six feet water on it, called La Mouton, the Sheep ; it lies S. E. from the east point of the Tapion, about $\frac{1}{2}$ a mile ; and there is 8 fathoms between it and the shore.

Cavaillon bay is pretty spacious, though the anchorage is of very little extent ; the coast on the west is too steep, and the bottom full of rocks. You must come to an anchor on the east side of the bay, opposite a coast covered with mangroves ; approach it without fear, the bottom being clear : and you have five fathoms close to the shore. In this bay you are sheltered from the sea breezes, by the east point of an island, which leaves a passage between the mangroves into the Bay des Flamands.

The Bay des Flamands, or Flemish bay, which lies $\frac{1}{4}$ league from Cavaillon bay, runs into the land toward the N. E. Its entrance and shores are clear and bold, and it is the place where ships lie up in the hurricane months ; there is a good careening place, and you may anchor any where in the bay.

From this bay the coast runs E. by N. 2 miles, as far as the Great Bay of Messe, where the anchorage is good all over, but you are no way sheltered from the southerly wind, as the entrance opens to the southward, and is very broad.

The coast continues its direction to the E. by N. as far as Point Pascal ; half way towards it is the Little bay of Messe, in which you may likewise anchor, but are not even sheltered from the sea breeze. Off the great bay of Messe, is a shoal that lies like a bar across the bay, and extends opposite the point which is to the westward of the Little bay of Messe. This shoal in some places has not more than from 15 to 18 feet water ; it is very narrow, and leaves a passage of $\frac{1}{4}$ of a league between it and the coast ; it does not extend to the southward more than $\frac{1}{2}$ a league from the shore. If you want to go into the Great bay, and your ship draws more than 15 feet, you must keep close to the shore on the west side of the bay, ranging by Point Paulin, which forms the west entrance of the bay ; the beginning of the bank is north and south of Point St. Remi, at the distance of about a mile.

Point Pascal is steep, and of a white colour ; it forms, with a little island that lies to the eastward about half a league, the principal entrance of St. Louis bay. This island is called Orange key. You see it from the entrance of the Cayes, which is 5 leagues distant ; it is then nearly in a line with the shore S. of the bay of Messe.

From Point Pascal the coast runs N. N. E. one mile, as far as Point Vigie, from whence you discover the whole bay of St. Louis, which is shut in, in the east, by Cape Bonite, that bears from point Vigie N. E. $\frac{1}{4}$ E. 2 miles.

To anchor in St. Louis bay, you range along Point Pascal, then Point Vigie, and along the west coast in 8 or 10 fathoms ; the anchorage is west of the Old fort, about $\frac{1}{4}$ mile from the shore, in such a situation that you can see the town between the Old fort and the shore in the bottom of the bay. The Old fort is built upon an islot of rocks, from which there is a passage towards the shore in 6 fathoms, to the anchorage before the town, where the greatest depth of water is 5 fathoms. South by east of the Old fort, $\frac{1}{3}$ of a league, and west of Cape Bonite, the same distance, is the shoal called La Mouton, and there is a good passage between it and the shore, or the Old fort ; the depth is less considerable, however, than on the west side of the bay. You may go between Orange

key and that shore, in deep water, and then you will meet with a small island, called Rat key, between which and Orange key you may pass, or between the shore and both; but those passages are not large. There are shoals off the shore, which makes it necessary to keep closer to the two islands than the shore.

One league and a half distant E. by N. of Orange key, is Moustique key; this island is clear of shoals except very close; you may pass without it or within; on the N. side of it, one eighth of a league from the shore, you will have 10 fathoms. If you sail within shore, you must not keep too close to the St. Domingo coast, as there is an island between Cape Bonite and Cape St. George. You will find no other shoal till you meet the Trompeuse, which lies 4 miles E. N. E. of Cape St. George, off which is a shoal called La Teigneuse, and running out from it about a mile. North of Moustique key is Cape St. George, which you may approach; and N. of a key called Caye a Ramiers, or Wood Pigeon's key, which bears E. by N. 2 miles from Moustique key. It is known by a white hummock, rather steep, and seen at some distance; there is a deep passage between it and Moustique key, by which you go into the Great bay of Aquin. S. of Caye a Ramiers lies a shoal, which extends half a league, and has only 3 fathoms in the middle. E. of the same key is a small island, called L'Anguille, (the Eel) and to the N. E. is another called La Regale; the three form an equilateral triangle, whose sides are nearly half a league.

To the E. N. E. $\frac{3}{4}$ of a league from Caye a Ramiers, is the Great key of Aquin, which is an island of a tolerable height, upon which are two white hummocks, very remarkable. This island runs to the E. by N. being $\frac{3}{4}$ of a league long, and $\frac{1}{4}$ league broad, and bold on the S. side. You must take care of the white shoals of the Eel, which is S. of the W. point, so that it does not leave a passage between Caye a Ramiers, and the Great key of Aquin, for vessels that draw more than 12 or 15 feet water.

East of the Isle of Aquin is a white insulated rock, at a short $\frac{1}{2}$ league distance, which is called the Diamond. East of it, at two cables' length on the St. Domingo shore, is the point of Morne Rouge, or Red hummock; so that the E. point of Aquin, Diamond rock, and the point of Morne Rouge, form the two passages into the bay. All these shores and islands are bold; you will find in the Morne Rouge passages, 5 and 6 fathoms, and between the Great key of Aquin, and the Diamond, 6, 7, and 8. The bay is very extensive, and trenches a great way inland, though the water is very shallow; anchoring in 3 fathoms, you will be a long way from the land.

Another passage into the bay is between Caye a Ramiers and the Moustique key; you then steer E. N. E. to come into the mid-channel between the shore and the islot; when you have doubled Caye a Ramiers you will see La Regale, which is a very low sandy islot, and leave it on the starboard hand, keeping in the mid-channel between it and the shore; then you haul up for the Great key of Aquin as much as the wind will let you, and anchor to the N. of the Great key, in 6 or 7 fathoms: but you may, if you choose, go farther in.

The point of Morne Rouge is very easily known at a distance, by three white hummocks, which are very high; they are called the Tapions of Aquin, and form together a huge cape, under which is an anchorage in 10 or 12 fathoms, at a good distance from the land. This bottom continues as far as the little bay Des Flamands, or Little Flamingo bay, which is W. N. W. 3 degrees W. one and a quarter league from the Tapions of Aquin.

You must observe that from Point Pascal all the capes are cut out, as it were, and steep, and front the S. and S. E. and as on all this shore, the land is white, you see a great many white hummocks; Aquin key has two, but the highest and easternmost are those of the Morne Rouge, and, with a little attention, it will be impossible to mistake them. From the point of Morne Rouge, or the hummocks of Aquin, the coast, after having trenched in a little to the northward, to form the small bay Des Flamands, runs 10 leagues E. by S. as far as the Cape of Bayenette. All the shore is bold and free from danger, but does not offer any bay or anchorage, which would shelter you from the common

breeze. Two leagues and a half before you come to Cape Bayenette, there is a considerable depth of water off the shore, which is iron bound.

Cape Bayenette is known by the white hummocks which are at its extremity, and forms the entrance of a large bay of the same name, that faces the S. E. It is supposed to take this name, Bayenette, (i. e. Clear bay,) from the great depth of water found all over it, and its being entirely clear of shoals; you are here very little, if at all sheltered, and must anchor on the N. side of it, pretty close to the shore. This bay trenches in a league to the northward, after which the shore again runs to the E. by S. 5 leagues, as far as Cape Jacquemel, which is high and steep, and makes the W. entrance of Jacquemel bay. From this cape the coast runs W. N. W. as far as Redoubt point, which is well in the bay; in all this extent no ground is to be found: the other entrance is Cape Marechaux. When you are between these two points, and nearly in the middle of the bay, you will see at the bottom of it a reef which you must double to the N. N. W. leaving it on the starboard side, you anchor between it and the shore, which you must keep pretty close to, otherwise you will have a great depth of water. The anchorage for large ships is E. of a white hummock, in the bottom of the bay, and W. of the great reef. Cape Marechaux bears N. N. E. a small league from Cape Jacquemel.

From Cape Marechaux the land trenches in a little to the northward, and rounds out again to Cape Morne Rouge, which is seen at a distance, and is known by white hummocks. It bears E. 10° N. 29 miles from Jacquemel. The coast in all this space forms several little coves, where small vessels may anchor, but in none of them will they be sheltered any way.

One league and a half E. of Morne Rouge, is Saletrou, or Foul hole, where you find a good anchorage for ships which do not draw more than 16 feet; larger vessels may likewise anchor there, but they must lie farther out, where the ground is not so good.

From Morne Rouge the coast trenches in a little to the northward, then out again, running to the E. S. E. as far as the Anses a Pitres, or Pitres coves, which is the last French settlement on the S. of St. Domingo. All this part of the coast is very safe, and you may approach without fear.

There is good anchorage at the Anses a Pitres, which is very easy to come at: you must not be afraid of running in, as at two miles distance from the shore the water is very deep. All this shore appears white, and the coast is chalky. You may anchor either before the plain of Anses a Pitres, or south of a small cape, which is before the mouth of a river, and considerable enough to be easily distinguished; the water is smooth, and you are well sheltered in 6 or 8 fathoms, good ground, or in 4 fathoms farther in shore.

From this anchorage the coast begins to run to the southward, trenching in to the eastward one league, to form a cove, called Sans Fond, or bottomless cove. It runs afterwards S. by W. as far as the False cape, (Cape Lopez,) which bears 9 leagues S. E. $\frac{1}{4}$ E. of Morne Rouge, and $17\frac{1}{2}$ leagues E. by S. from Jacquemel. From Cape Lopez the coast runs E. S. E. $3\frac{1}{2}$ leagues, as far as Cape Mongon, and then N. E. $\frac{1}{4}$ N. and N. N. E. to form the Great bay of Neyba. South of the False cape $1\frac{1}{2}$ league, is an islot called the Frailes, which is bold and safe.

To the S. S. E. at the same distance is another islot, called Altavella, equally safe and bold too. One league to the eastward of it, and south of Cape Mongon, is Beata island, whose length is one league north and south, and its breadth east and west 2 miles. There is a breaker off the N. by E. part of it, that runs towards Cape Mongon, at whose extremity is a white shoal, which very much narrows the passage between Beata and the shore; you have but three fathoms water in the passage with a tolerable anchorage to the westward of Beata, between it and the shore in 8 or 10 fathoms grassy ground.

You may generally see the bottom, near all these islands; but the water is very deep near the shore of St. Domingo. This part of the coast, which projects towards the south from the seashore to Cape Mongon, as far as three leagues N. and as far as the sea towards the E. and W. is a flat of white and hard rocks, in

which you see large holes and breakings, and which is about 40 feet high; nothing grows there but some prickly shrubs.

When you come from the southward or eastward, and are bound to the N. side of St. Domingo, you must make the islands of Mona and Monica, which are two small islands situated in the passage between Portorico and the island of St. Domingo; they are both clear and safe, and you may go within two miles of either of them; and there is even an anchorage to the leeward of Mona, half a league from it, in 7 or 8 fathoms sand and weeds; having then the N. W. point of Mona N. by E. 2 miles, the S. W. point, (off which is a small reef,) S. E. $\frac{1}{4}$ E. and Monica N. by W. You pass to the westward of Mona, and when you have brought it to bear E. S. E. 3 or 4 leagues, you will perceive the coast of St. Domingo. All this S. E. part is very low, and in the channel the current which sets to the northward, is very perceivable.

The point of St. Domingo nearest Mona is cape Espada, a low point encompassed with a reef and a white ground; it bears from Mona, nearly W. N. W. 10 or 11 leagues. From Cape Espada the coast runs N. by E. 4 or 5 leagues, as far as Cape del Enganno; this is a small flat point, off which stretches a reef to the N. E. 2 miles. When you are abreast of it, you lose sight of the islands of Mona and Monica.

From Cape del Enganno the coast runs N. W. $\frac{1}{4}$ N. 12 leagues; it is low to within 3 leagues S. of Cape Raphael, where it begins to rise a little, till you come to Cape Raphael itself, which is of a middling height, and appears at a distance like an island; it is easily known by a round mountain seen inland, and not unlike a sugar loaf.

From Cape Raphael the coast runs W. by N. and then W. to form the Great bay of Samana, which is shut to the N. W. by Point a Grapins, or Grapels point, which is 2 leagues S. S. W. 5° W. of Cape Samana.

Cape Samana is about 7 leagues N. W. $\frac{1}{4}$ W. of Cape Raphael. You may anchor in the north part of Samana bay, ranging along Point a Grapins, at $\frac{1}{4}$ league distance; you leave on your larboard hand 3 keys covered with wood, and when the westernmost is brought to bear S. S. W. you drop the anchor in 15 fathoms water, good ground, a short $\frac{1}{4}$ league from the shore; then Bannister key ought to be W. by N. one mile.

The south anchorage of the bay is very difficult, the passage to it being very narrow; the middle of the bay is shut in by shoals; and in ranging along the entrance of the bay the bottom is seen in 7 and 10 fathoms.

In coming to the southward of Cape Espada, you will see the small island Saona, which is covered with trees, and surrounded with a white shoal, projecting about 2 miles. Between it and the coast of St. Domingo, which runs W. 8° N. the passage is very shoal and narrow.

The coast of St. Domingo trenches a little to the northward towards St. Catharine's island, distant from Saona 8 leagues.

The coast continues to run towards the west some degrees north, to the river of Santo Domingo, which lies 13 leagues from the island of St. Catharine, 27 leagues from Cape Espada, and 20 leagues from the point of Saona island.— You may anchor before the river of Santo Domingo, pretty close to the shore, and vessels not drawing more than 14 feet water may go into the river.

This place, which is the metropolis of the Spanish part of St. Domingo, is known by a great fort, built on the right hand bank of the river Ozama, upon which the city is situated. You will likewise perceive to the westward of the fort, a large Savanna, forming an amphitheatre, which affords a delightful prospect.

From Santo Domingo the coast runs W. S. W. 14 leagues, as far as the Point des Salines, or Salt Pans point; then it trenches in to the northward to form the great bay of Neyba, which takes its name from a large river, whose mouth is in the bottom of the bay. From this river the coast runs south, to form Cape Beata, which is S. W. $\frac{1}{4}$ W. of Santo Domingo, and 24 leagues distant.

In sailing from Santo Domingo to Cape Beata, you must guard against the

currents which run to the eastward, along the coast, and in the entrance of Neyba bay are setting weakly to the northward.

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Observations on the navigation round the Gonave Islands, and in the Southern Channel.

THE most dangerous reefs are those which seem to be joined with the land of the Little Gonave, and are stretched above a league in the offing; however, they lie at about a mile from the shore, and you might pass, in an urgent case, between them and the Little Gonave, even with a ship; but the attempt would be imprudent, if you are not forced to do it, and have not the wind well set in, as the currents are very strong and irregular, though they run more generally to N. N. E. in this part, and between the two Gonaives.

Small vessels drawing 8 or 9 feet water, may find a good anchorage to the west of the Little Gonave; to come to it the south channel is far preferable to that of the north.

The N. E. point of the Gonave, called Galet point, is low and bordered with a reef which stretches along the east coast, coming from the South, and extends a little more than $1\frac{1}{2}$ mile opposite the place called Trou a l'Eau, or Water hole; within is a white ground, where you find from 4 to 6 fathoms water.

To sail near this reef, which every vessel can do, that draws 9 or 10 feet, you must, in coming from the east, take a channel which is opposite a fisherman's hut. There are several other channels, which are easily known by the non-appearance of white ground; about 38 fathoms within the reef you may range along the coast as far as Galet cove, in case the wind should fail, there is anchorage every where; but the places to be preferred are Piron cove, Constantine's hole, and especially Galet cove, which is very convenient, the hold is good and the reefs shelter you from the swell of the sea.

The several anchorages on the N. coast for boats or schooners are L'Islet a Marc, Grand Lagoon, and Bahama channel, where you are equally sheltered; the remainder of the coast is likewise bordered with reefs, but they are very near the shore, and you find there no anchorage.

The W. part is an iron-bound coast, along which you may range pretty near, but it is not so from the S. W. point to Point-a-Retures, where you find a number of small reefs asunder, and almost even with the water. Several small vessels may anchor in that part, on the spot named Les Baleines, or the Whales; but you cannot do it without a pilot well acquainted.

The only place where two or three great ships, such as frigates, could anchor, is La Baie du Parc, Park bay, which lies to the N. W. of Point Fantaque; but coming into it is dangerous, on account of several reefs asunder, which are never seen.

The reef called Rochelois has been fatal to many ships, and was still much feared by navigators; it lies in the channel which separates the S. coast of the Gonave from that of St. Domingo; its breadth is near $2\frac{1}{2}$ miles, in a direction N. and S. nearly, and its length about 4 miles from E. to W.

The extent of the rocks which are toward the middle of this reef, is about 110 fathoms, they are quite uncovered at low tide, but three heads only are perceived at high water. There are two other shoals of very small extent, which are dangerous, having only 2 fathoms water. They lie to the N. W. of the rocks in the middle, one at 600 fathoms distance, and the other at 260. There may be some dangers on the Rochelois, and prudence requires that, with a great ship, you should avoid it entirely; there is more room for tacking to the N. of that reef than to the southward of it. You are only to keep at the distance of one mile at least from the Gonave, if you pass by the north; whereas, in passing by the south, you may range along the St. Domingo coast, which is safe and clear in this part.

The latitude of the middle of the Rochelois, is $16^{\circ} 37' 20''$ N.

Instructions for sailing along the Coasts, and into the Harbours of Jamaica, Port Royal, and its Channels.

BEING off Morant Point, or the east end of Jamaica, and bound to Port Royal, you are to steer down 3 or 4 miles off shore, until past Morant bay; as the coast from the east end to the southward of Rocky point, is lined with a reef that stretches 2 miles at sea, and part of which reef generally breaks.

From Rocky point to the westward, the coast continues rocky, about one mile from the shore, as far as Morant bay; then it is clear till you come to the white cliffs, called the White Horses, of which there are some rocks about half a mile from the shore.

From the White Horses to Yallah's Point, the distance is about 13 miles; in running it down, when the former bears north, and Yallah's point west, you will have soundings, and frequently see the bottom in $7\frac{1}{2}$, 8, 9, and 10 fathoms; and as you approach Yallah's point, the water deepens till you lose soundings.

From Yallah's Point to Cow Bay Point, there is no danger; this point is low, but bold too, as well as all the coast to the westward as far as Plumb Point. The course between the two points is W. by N. 8 miles; but if you are 3 or 4 miles from Cow Bay Point, you must steer more to the northward.

Plumb Point is the S. E. point of the Pallisadoes; you may run in boldly for it, and approach its extremity within half a cable's length, having nothing to fear till you are abreast of it, and off the Middle Ground. Between this and Plumb Point is the entrance of the eastern channel into Port Royal. When you bring Rock Fort N. by E. or N. N. E. you will come over a cross ledge, just as you are out, and in with the leading mark, which is the magazine on the highest part of Salt pond Hill, or on the Nab and flag staff on the fort at Port Royal W. by N. or the north part of the Twelve Apostles battery, and the magazine of Fort Charles in a line. The cross ledge is rocky ground; in going over with the above marks, you have $7\frac{1}{2}$, 10, $10\frac{1}{2}$, 11, $11\frac{1}{2}$, 13 and 15 fathoms water.

You sail down with those marks which lead you near mid-channel, till you are abreast of Lime key; then a little to the southward toward Rackham key, giving Lime key a good birth, till you open Port Royal between Gun key and Rackham key. Thence go between these two keys, in mid-channel, and immediately after they are passed, steer directly for Port Royal point, till you bring the fall of Yallah's hill on the centre of Gun key, which will bring you between the Knowl and Port Royal point; you may approach the point within half a cable's length, and by sailing close to it, you will also pass between it and the Harbour knowl, which lies to the westward, about the length of a cable and a half, with 19 feet on it.

Having passed the point, steer to the northward, till the Admiral's Penn comes to the north of Gallows point. This mark leads you clear of Old Port Royal, where you may anchor abreast of the dock yard, or even before you come to it. With a land or N. wind the channel between Gun key and Port Royal is to be preferred; then the Twelve Apostles battery on the S. angle of Fort Charles leads you clear of Gun key reef.

Strangers, in case of necessity, might pilot their ship down to the anchorage, in the channel even when the marks are not to be seen, as nothing is to be feared on the side of the Pallisadoes, which is low and bushy. They must only keep within $\frac{1}{2}$ or $\frac{3}{4}$ of a mile of Plumb point, and steer down by the Pallisadoes, till they bring Lime key to bear S. S. E. or S. E. by S. then they anchor in 15, 16, or 17 fathoms, near the middle of the channel.

The most remarkable shoal in the E. channel, is the Middle Ground, or eastern Middle Ground, which lies $1\frac{1}{2}$ mile S. S. W. from Plumb point; it consists of two patches, rocky bottom; the E. patch having 12 feet, and W. patch (about 70 fathoms to the W. N. W. of the other only) having 9 feet; they are divided by a narrow swatch 10 fathoms deep, and both break with strong sea breezes. You may sail within the Middle Ground, or without it to the southward, as necessity requires, but to the northward is the best and safest channel.

The soundings in that channel are uneven, from 7 to 19 or 20 fathoms; but when you are past the Middle Ground, they are regular, from 19 to 13 fathoms between Rackham and Gun keys.

The first key you meet with, steering from the Middle Ground towards Port Royal, is Lime key, from the N. end of which a reef stretches about a cable's length; your eye is the best mark for it, as it is generally seen; to the westward of the key lies another shoal, with 8 or 10 feet upon it.

The Knowl of Port Royal point, is the third shoal; it is a small hard coral bank to the southward of the point, with only 16 feet water upon it. If your ship draws 12 or 13 feet water, you must be careful to keep clear of it.

1. To go within the Knowl, the leading mark is to bring the highest bush on Gun key (which is near the middle of it) in one with Yallah's point; you have then 10 fathoms water and the channel is 70 fathoms wide. The mark to strike the Knowl, is, the S. point of Gun key, on the high hill of Yallah's, or a ship's length open of Yallah's point; the breast mark is the church on the 7th or 8th embrasure of the fort Sandy key just open with Lime key, and you will have 16 or 17 feet water.

2. To go between the Knowl and the Middle Ground, which lies about 300 fathoms to the south-westward of it, the leading mark is True Land's hummock, within Yallah's on the southernmost part of Gun key, or Yallah's point well open to the northward of the N. point of Rackham's key. This channel which is the widest, and has 12 fathoms water, is mostly used when taken with the land wind. When the church is on the second embrasure, counting from the westward, this Middle Ground is called the Western ground. The anchorage is good all over Port Royal harbour; but the best anchoring for ships that are bound to sea, is in 9 fathoms, with a notch on the E. side of a high mountain, called the Leading notch, a little open to the eastward of Fort Augusta and Rackham key, in one with Port Royal point.

To go to sea from Port Royal, you make use of the south or the new channel; the small craft generally go through the east channel, but it is to be avoided by large vessels, except they are prime sailers, and have a strong land breeze or north, with an appearance of its lasting long enough to carry them through.

When you are bound through the south channel, you should get under weigh with the land wind, as soon in the morning as you can see the marks, observing that the current then sets most commonly to the westward. The great leading mark is the Leading notch, in one with the magazine at Fort Augusta, which is the easternmost building of the fort. This carries you clear through in 16 or 17 feet water. To keep well to the westward of the Middle Ground, be careful not to bring the church steeple upon the corner of the wall with embrasures, until Yallah's hill is brought in one with Lime key. In case you should not see Yallah's hill point, look for a hummock on Hellshire, and when it is open of Salt Pan Hill, you are to the southward of the Middle Ground, which, as we heretofore observed, is here called the Western Ground.

The Middle Ground is a large coral bank, which often breaks with only 3 feet on it in the middle; the north and west sides are almost steep. On its N. W. edge lies a buoy, whose marks are Port Royal tower, on the 4th embrasure of Fort Charles, counting from the westward, and Hellshire hummock on the flag staff of Fort Small.

When you have opened Hellshire hummock, with Fort Small, you steer out with the Leading notch a little to the eastward of the magazine, which carries you between the Drunken Man's Key, the Turtle heads, and the South Knowl, or to avoid these heads, you are to haul up so as to bring the church steeple to the easternmost part of the fort, and continue to keep that mark until the South Key is brought on with Yallah's point. Then you may haul to the westward, if the wind will permit. But if you should not keep up the leading mark, and the church steeple should come near the corner of the fort, you must then come to, or tack and stand in. The mark, when ashore on the Turtle heads, and three fathom bank, is the church steeple on the magazine of the fort and Spanish town land just open.

When Maiden Key is open a ship's length to the southward of Drunken Man's Key, you are then to the southward of South Knowls, and should bring the Leading notch in a line with the magazine, which will bring you close to the westward of the Little Portuguese, in 8 or 9 fathoms; when Yallah's bill comes to the southward of South Key, you are then clear of the Portuguese, and may haul to the S. E. giving South Key a birth of about a mile.

Drunken Man's Key, is a narrow ledge of rocks, just above water, covered with some loose sand, that gives it the appearance of a sandbank. To the southward of it, about $\frac{1}{2}$ a mile, there is a shoal which breaks with strong sea breezes, and between it and Drunken Man's Key is a channel, having 6 or 7 fathoms water.

The Turtle heads are three dangerous spots, with 10 or 11 feet water on their shoalest part, and deep water close to them. The South Knowls to the S. E. of these heads, are two small patches about 70 fathoms asunder, with 23 feet water on them. And to the S. by W. of these lies One bush reef, which always breaks, and is almost steep too. The Three fathom bank is a large coral shoal, with 19 or 20 feet water, which breaks with strong sea breezes. A small patch about a quarter of a mile to the S. S. E. of it has 20 feet water; it is called the Warrior's bank, from the English ship the Warrior having lost her rudder there in 1782.

On the east side of the south channel, the Little Portuguese is the southernmost shoal; it has from 22 to 26 feet water, and in general a great swell.

The New channel lies to the eastward of the South channel, and almost parallel to it, and was surveyed, buoyed, and first used by order of Admiral Affleck while he commanded on the Jamaica station; it is certainly preferable, on many accounts, to the South channel; it has smooth water till you come to South Key, with good anchoring ground, easy riding, and a facility of going to sea to the southward with the sea breeze, as far as S. E. &c.

The leading mark to enter this channel is a remarkable flat hummock on the mountain to the N. N. W. of Port Royal; when the middle of this hummock is in a direct line with the White house, standing to the N. W. of Fort Augusta it leads you to the westward of the harbour and Point Knowles, as well as between the east edge of the South channel, Middle Ground, and the west end of Rackham's key shoal. You steer with these marks on till a remarkable round hillock to the westward of Stony hill barracks, comes open to the eastward of Gun key.

After you have opened this hummock, you steer away to the southward, keeping it open till a saddle in the mountains to the N. W. comes in a line with Fort Small. Then you bring the same hummock on the centre or west edge of Gun key, which marks carry you to the westward of the shoals on the east side of the channel, and about a quarter of a mile to the eastward of the Great Portuguese, and as soon as Portland appears like an island, you may then haul to the eastward, being clear of the reef and shoals of south key.

The shoals in this channel are—

I. The South channel Middle ground (on the east side of which there is a buoy) and the small shoals to the southward of this ground.

II. The Great bay shoal, which has 16 feet least water, and a floating beacon in 18 feet.

III. The four fathom knowl, a very small spot, with no less than 24 feet water on it, and deep water all round. Ships of 20 feet draught may sail over it, as the water is smooth.

Between Great bay shoal and South key breakers, there are two shoals; the northernmost about half a mile S. by W. from the former is steep, and a small part of it appears just above the surface of the water. This shoal almost always shows itself by the rippling on it. About half way between this and the breakers lies the second shoal, having only 16 feet water.

The South key breakers have a buoy upon them. The marks for the west edge of this reef is the Leading notch open a little to the eastward of the Captain house, and a saddle mountain to the north-west, and Fort Small in one.

Half a mile to the southward of these breakers is the Eighteen feet reef, remarkable by the great swell upon it. To the westward of that reef lies the Great Portuguese, which is the southernmost shoal on the west side of the channel.

When you come from Port Royal to Portland, being clear of the South or New channels, the course is S. W. distance 10 leagues; but you must keep farther to avoid Rock reef and the key. There are soundings so far out as to bring the easternmost land of Hellshire to bear N. by E. and Rocky point, or the southernmost land of Portland N. W. by N. At the same bearings soundings have been found from 17 to 23 fathoms, and the next east no ground with 80 fathoms line, though not a ship's length between the first and the last. Upon this flat are several keys, two of which bear from Portland E. distance two or three miles, and Negro head rock, with the other keys, lie in N. E. by which is the going into Old harbour; right off from Portland you have gradual soundings for 8 or 9 miles.

From Portland S. distance 13 or 14 leagues, lies Portland rock, which is a single key, and little higher than Drunken Man's Key, off Port Royal, with small bushes on it; a mile from this rock are knowls of 14 and 15 fathoms water.

To sail into Carlisle bay, or Withy wood road, you must keep to the westward, till you bring a little round hill in the bay to bear N. or N. by W. (taking care in coming from the eastward to keep off shore, so as to avoid Rocky point, to which you must give a good birth of 3 or 4 miles.) Keep the same bearing as you run in sight of the Old Fort; then between you and the hill, in 10, 8, 7, 6, 5, 4, $3\frac{1}{2}$ fathoms water, when you will be within a mile and a half from the shore. The fort N. E. or N. N. E. is the best place to anchor in for loading because your boats can sail both ashore and aboard with the sea winds, and then Rocky point will be on the southernmost point of Portland, bearing E. S. E.

Withy wood lies about 5 leagues from Portland point; it is an open road only sheltered from easterly and northerly winds, and open to S. W. and southerly. There is little danger coming in; only bring the town to bear N. or N. N. E. from you, and then run in and come to an anchor in 3, 4, or 5 fathoms, muddy ground; it is a flat a long way off, so that you lay a great distance from the shore. In going out you may get under sail when you please; there is little or no danger but what you may see. No tides here, but a strong westerly current generally runs in the offing. Variation $6^{\circ} 50'$ east.

If you want to anchor off Milk river, a little more to the westward you must do as for Carlisle bay. Between this and Pedro bluff is Alligator pond, a dry key, 2 or 3 miles long, having a sandy reef round it even with the water, and there is 3 fathoms water within, and good soundings, $3\frac{1}{2}$ and 4 fathoms for a long way without it.

From Portland point to Pedro bluff or Point, is near 16 leagues W. by N. Off this bluff there are soundings for 5 or 6 miles, the edge of which runs E. S. E. and W. N. W.

From Pedro bluff S. 7° E. distance 14 or 15 leagues, are the Pedro Keys, towards the east end of Pedro shoals; to anchor there in 9 fathoms water, hard ground, you may bring the easternmost key E. $\frac{1}{2}$ S. distant 4 or 5 miles; the Middle key S. E. $\frac{1}{2}$ S. and the Western, or Savannah key, S. by E. $\frac{1}{2}$ E. There are soundings for 3 or 4 leagues to the westward, in the following depths, $9\frac{1}{2}$ to 7, and then to 10, fathoms hard ground.

From Pedro keys, S. W. $\frac{1}{2}$ W. about 24 leagues, is Baxo Nuevo, a bank called by the English, the New Boar, being about S. 32 leagues from the W. end of Jamaica.

Observe, that in running through Pedro shoals, you will see several spots and breaches S. W. about 5 leagues from the keys; and round breaches S. W. by W. two leagues from them. The breaches are about a cable's length; when you come abreast of them, you will see, from the mast head, a very large tract of breakers, bearing about S. W. by W. and W. S. W. 5 leagues from you; and 5 leagues from those, a round spot, which breaks pretty high, and is the western-

most breach of the shoals. Being come to the westward of the round spot, about 5 leagues, you may haul gradually over, in 9, 10, or 11 fathoms, and sometimes overfalls where you have no ground. In running down before the wind, you must give these breakers a good birth, and come no nearer than 9 fathoms at most, the banks being very steep all along; in hauling a little to the southward, you have very deep water.

Some pilots pretend, that where you do not see it break, you may run over the shoals any where, and not find less than 3 or 4 fathoms; but no stranger ought to make the trial.

Baxo Nuevo has a key, which is about 2 cables' length long, and one third broad; stretching E. by N. and W. by S.

To anchor at Baxo Nuevo, bring the easternmost point of the reef to bear E. N. E. distance 6 or 7 miles, and the small sandy key E. S. E. distance 3 or 4 miles, the westernmost breakers in sight from the deck of a 20 gun ship, bearing S. S. W. then you will have hard sandy ground. Observed at anchor and found the latitude $15^{\circ} 57' N.$ and sounded from the ship S. by W. 2 cables' length, and had 10; at 3 lengths 8, at a mile $7\frac{1}{2}$ fathoms, all coarse sandy ground. In my sounding fell in with a rock, with 7 feet water upon it. The ship bore from the rock N. by W. $\frac{1}{2}$ W. distance $2\frac{1}{2}$ miles; and the key E. N. E. $2\frac{1}{2}$ miles S. by E. $\frac{1}{2}$ E. from the rock at Knowl; at the distance of one fourth of a mile, there is another Knowl with 4 feet water; both of them are steep too, and not bigger than a boat; I sounded from the Key to the ship, $\frac{1}{3}$ of the way 5 fathoms, $\frac{1}{3}$ way $7\frac{1}{2}$, and $\frac{2}{3}$ of the way $8\frac{1}{2}$ fathoms.

From Pedro Bluff to Black river, the distance is about 6 leagues N. E. If you should want to go into this last place, you must keep Pedro bluff open of Parrete point, till you bring the church in with a gap on the high land, or to bear N. E. easterly; then steer right in for the church, which will carry you into the best of the channel. It is full of heads of coral rocks.

The soundings become narrow at Bluefield's point (Crab pond point) but you may sail down by them. If you steer in for Bluefield's bay, you will have 7, 6, $5\frac{1}{2}$, $5\frac{1}{4}$, and $4\frac{1}{2}$ fathoms water; and within that depth 7 and 8 fathoms. The bay through is foul ground, and you must seek for the best sandy spot for your anchorage. To come to an anchor there, you must keep the land to the eastward in sight, open of the point, until you bring the leading mark (which is the overseer's house, on the W. side of the bay, standing upon a small round hill) in one with the Tavern, by the water and river side, they bearing when in one, N. E. by E. Then steer in for them, till you can bring the easternmost point of the bay to bear S. E. by E. or S. E. by S. when you will have four and a half and quarter less 5 fathoms water, and the best anchoring ground. The watering place is to the northward of the bluff, in the lee side of the bay; you may water likewise at a stream of Bluefield's river, near the Tavern.

N. B. The mountain called Dolphin's head, is far to the westward of Bluefields, and bears due north from Savannah la Mar.

Savannah la Mar bears from Bluefield's point W. by N. $\frac{1}{2}$ N. distance 8 or 9 miles. The entrance is very narrow, between the Middle Ground, a small rock, with only 4 feet water, and a reef which has 8 feet; a general leading mark is to bring the fort north, and keep it so all along the channel; but the best and surest way is to bring the large gap at the N. end of Dolphin's head, in one with the large tree on the low land to the northward of Savannah la Mar, bearing N. $\frac{3}{4}$ W. This carries you close to the Middle Ground, which you will perceive, and as soon as it is passed, you haul to the eastward, and anchor in 17, 16, or 15 feet water. But strangers should not attempt to enter without a pilot.

From Pedro bluff to Negril by South, which lies in lat $18^{\circ} 17' N.$ the course is W. N. W. or N. W. by W. about 20 leagues.

From Negril by S. to Negril by N. the course is N. $\frac{1}{2}$ E. 9 miles and all round this W. end of Jamaica, it is flat off, with good soundings for a long way. Between Negril by North and Lucea harbour, or St. Lucy, are several places,

as Orange bay, Green island, and Davis's cove, which are seldom used but by those who go thither on purpose to land, and have pilots on board.

Lucea harbour is about 15 or 16 miles north-eastward of Negril by North. When you are out in the offing, the marks to know this place, and sail into it are as follow: open the harbour by bringing the Dolphin's head to bear south, then steer right in, which will lead you in sight of the fort. You may borrow as close to the E. side of the harbour as you please; but on the W. side you must not come too near, for there lies a stony bank (about a musket shot N. from the point on which the fort stands) to which you must give a good birth.

On the E. side you will have 7, 6, $5\frac{1}{2}$, and 4 fathoms water, very good anchoring ground, till you come to the anchorage in the harbour, in $5\frac{1}{2}$, 5, and $4\frac{1}{2}$ fathoms. In the middle of the harbour there is a small rock, which is steep all round.

Mosquito cove is an excellent harbour, secure from all winds; the channel at the entrance is little more than half a cable broad, but it widens as you go in, with a depth from 7 to 6, 5, and $4\frac{1}{2}$ fathoms, mud.

Montego (or Monteca) bay, lies E. by N. from Lucea harbour, about 20 miles. In going in there, if you sail from the eastward, you must give the point a good birth of 5 or 6 miles, as you come down (on account of the reef which runs off, and may be seen) till you open the town, and bring the Gun tavern to bear S. E. Then stand in for it, which will carry you clear of the reef to the westward, and thus run in till you shut in the point to the northward of the fort, when you will come in upon soundings in the bay.

In sailing along the reef, you have 10, 12, 14, 15, 20, and so on to 30 fathoms water in the bay, it being a shelving bank. If you come to an anchor in 20 or 30 fathoms, your anchor will not hold; if in deeper water, you are in danger of driving off the bank. To come to the best anchoring ground, which is in 9, 10, 11, or 12 fathoms water, you bring the fort to bear N. by E. and the Gun tavern E. by S. but with small vessels, you may go up the bay to anchor in 7, 6, 5, and 4 fathoms.

In working from hence to windward, when it is clear weather, you may discern the copper hills, the highest on the island of Cuba. They bear from Montego point N. E. by N. distant about 34 leagues; and from St. Ann's bay N. and N. N. E. about 30 leagues.

From Montego point, 7 leagues E. lies Mariba Brea, or Brae, where vessels load; though the place is frequented only by those who go there on purpose. There is a bar with 16 or 17 feet in going in, and the passage in coming out, between the Triangle rocks, is not more than 60 feet wide, with $6\frac{1}{2}$ or 7 fathoms water.

About 14 miles to the eastward of this place, you come to Rio Bueno, where a ship may lie, bringing the point N. N. W. in 8 or 9 fathoms water. The bank is steep.

From Rio Bueno, 4 or 5 miles eastward, is Dry harbour, a good place for small vessels, but the channel is narrow, and has but 16 feet water.

Fifteen miles further from Dry harbour is St. Ann's bay: the usual method of going in there, between the two reefs at the entrance, as the water is clear, is to sail close to the westernmost reef, leaving it on the starboard side; but there is always a pilot at this place. You anchor in $6\frac{1}{2}$ or 7 fathoms, good ground.

About 10 miles to the westward of St. Ann's bay is Ocho rio (or Ochee rees) bay, to anchor in which, you may sail by the reef to the westward. This reef spits off from the E. side of the bay; so you must haul up, and bring its westernmost part N. N. W. or N. W. in 7 fathoms water. There is another reef to the southward of you, but as the water is very clear, your eye may be your pilot.

From Ocho rio bay to Ora Cabeca bay, an open anchorage to N. and N. W. winds, the distance is 12 miles E. Galina point is about 5 miles E. of this last bay; and Port Maria another open anchorage, 4 miles to the southward of Galina point.

To sail into Port Maria, from the eastward, you will see the high island of Cabarita, which must be kept a little to the larboard bow, so as to give the N. part of that island a birth of a pistol shot; then luff right in, and anchor close under the island, in 4 or 5 fathoms water, where you will be within a cable's length of the island, and one and a half from the main; small vessels may anchor between the island and the main. Observe that when you lie here at any time, you must buoy your cables, because ships are too often apt to heave their ballast overboard, and spoil the ground.

If you are to sail from the eastward into Ora Cabeca, you must go in by the W. of Galina point; but if you are off at sea, and want to go in for that point, you must bring the westernmost land of the Blue mountains S. by E. $\frac{1}{2}$ E. and keep it so, which will lead you in with the point. To anchor in Ora Cabeca bay, bring the easternmost point of the reef N. E. by N. distance about $\frac{1}{4}$ of a mile, and a house upon the hill, on the larboard side, S. E. by S.; bring also the Guard house, on the W. side of the river, S. W. by S. distance half a mile, and the westernmost Bluff point W. by N. then you will have $5\frac{1}{2}$ fathoms water, sandy ground. You may also anchor further in under the Red cliff bearing W. S. W. and there you will have deep water.

Thirteen miles S. E. of Porto Maria, is Anatta bay; to sail into this open anchorage from the eastward, you must steer down for Green Castle windmill, until you bring Old Shaw's house (in the middle of the bay) S. of you; then push in directly for the said house, which will carry you clear to the westward of the Schoolmaster, the only shoal in the bay. As the bank is steep and narrow, the first sounding is 9 or 10 fathoms water; therefore you should have your anchor clear, and moor in 6 or 7 fathoms, when you will be one fourth of a mile from the shore.

About 9 leagues S. by E. $\frac{1}{2}$ E. from Anatta bay, is Port Antonio, which was formerly a king's port, and there still are to be seen the remains of the careening wharf, &c. It is divided into two harbours, viz the east and the west. To sail into the east harbour, coming from the sea, bring the eastern part of the Blue Mountains to bear S. S. W. and steer in that course, which will carry you in sight of the Commodore's house, upon Navy island; keep that on your starboard side, keeping about mid-channel between Navy island and the east point of Mr. Pleasant's house (which is 2 stories high) open of the Fort point. There is in the middle of the east harbour a reef of 7 feet water, which keeps off the swell sent in by a N. wind; and without or within this reef you may anchor; if you choose the latter, you must keep over to the Fort side, till you open a great Cotton tree, with Mr. Trower's house on the east shore; then you may haul up, and come to an anchor in 7 fathoms water, good holding ground both here and without; indeed it is difficult to get the anchors out of the ground. The east harbour is not so secure as the west, being exposed to the north, which sends in a great swell; but its channel being broader, is not so difficult.

If bound into the west harbour, after making the entrance, which may be seen 2 or 3 leagues off, by the houses on Titchfield, or Navy island, you may run close to Folly point, and then steer on for the Fort till you bring some negro huts below Bryan's house, open of the Old Warehouse; this keeps you clear of the shore lying off Navy island, on which are coral rocks, whereon you have not more than 9 or 10 feet water. You may keep as close to the breakers off the Fort as you please, being steep too. When near abreast of the Old wharf, you may haul in and anchor at pleasure, in 6 and 7 fathoms, muddy clay. The entrance of this harbour is so narrow, (not being above 70 fathoms wide) that it must not be attempted without a leading wind. There is a channel for vessels of 9 or 10 feet draught of water, through the reef, to the westward of Navy island.

The tides here are not regular, but influenced by the winds, the variation in 1771, was $17^{\circ} 15' E.$

Directions for sailing from Port Royal to Morant Point, or the East end of Jamaica.

THE best way in sailing from Jamaica, for the windward passage, is to get as soon as you can, the coast of Hispaniola on board, where you will never miss of a windward current, and in the evening the wind off shore. Coming out of Port Royal, after you are clear of the keys, reach off till 1 o'clock, and then you will be well in by the time the land breezes come on. You may turn or stand into 13 fathoms water aback of the keys, for within that depth it is not safe; they stretch N. E. by E. and S. W. by W. There is a shoal which lies about $1\frac{1}{2}$ mile off the shore, between the Yallah's and the White horses; and nothing else till you come to Morant keys, or the Ranas. If you have occasion to sail into Port Morant, the following directions will be your guide.

Observe a house which stands upon a hill, on a red ground; the hill being right over the road leading to the path, which you may always see; bring that house and the path due north, then you may sail into the bay with safety. Take care not to sail too near the leeward or windward reef, but bring your marks north, as above mentioned. Then you will find 9, 8, $7\frac{1}{2}$, 7, $6\frac{1}{2}$, 6, 5, and $\frac{1}{4}$ less 5 to 4 fathoms water, till you have opened the Cooper's house and the Store house on the E. side of the bay; after which you come to an anchor, in what water you please; though there is on the same side a bank, right before the Store house, and not far from the shore, with not more than 3 and $2\frac{1}{2}$ fathoms on it. NOTE—That this sailing is to be attempted only between the hours of 10 and 2 in the day.

The body of Morant keys lies from Port Morant, S. E. $\frac{1}{2}$ E. about 11 or 12 leagues. Carrion Crow hill, or the first rising hill of the Blue Mountains to the eastward, bearing about N. W. by N.—N. W. $\frac{1}{2}$ W. likewise the body of Yallah's hill N. W. by N. $\frac{1}{2}$ W. joined with the above at the same time; so that by seeing these hills, you may judge of your distance off them, on the shore as well as the place your ship is in; and night drawing on, you govern yourself accordingly in turning or sailing.

These keys, which are only 9 or 7 feet above the surface of the water, lie from lat. $17^{\circ} 25'$ to $17^{\circ} 35'$ N. There are four of them, called north-east key, or Eastern key; Sand key; Bird key; and South-west key, or West key; they have all small bushes on them, and there are some cocoa trees lately planted on Bird key, by which they may be descried at a greater distance. The North-east key is bearing from Point Morant, or at the east point of Jamaica S. S. E. distance 11 leagues; it stretches S. $\frac{1}{2}$ E. and N. $\frac{1}{2}$ W. being in length 2950 feet; from its S. end, to the S. W. key, the bearing is S. S. W. and from the West key S. W. $\frac{1}{2}$ S. From the north end of the Eastern key to the southern, the bearing is S. by W. and to the West key S. S. W. $\frac{1}{2}$ W.

When Morant keys are bearing S. W. about 4 miles, you have about 18 fathoms water, stony ground, mixed with fine red speckled gravel. When they bear S. W. by S. about 4 miles, you have 16 fathoms, and when S. S. W. $\frac{1}{2}$ W. 6 miles distance, you have 23 fathoms, ground as above.

To know when you are to the eastward of the keys, coming from the southward, note, that Morant point, or the east end of Jamaica, and the North-east end of the same, bear from each other N. W. by N. and S. E. by S. So that when the North-east end, which is high and bluff, is to be seen on those bearings, or to the westward of them, you are to the eastward of all.

Also coming from the southward, and keeping the Yallah's hill to the northward of the above bearings, or Carrion Crow hill to the northward likewise, you are to the westward of the keys.

To anchor, coming from the eastward, borrow no nearer the reef than 6 fathoms. This reef runs down by the N. side of the Eastern key, and may generally be seen; steer down to the westward by it, until you bring the West key to bear S. S. E. or S. E. by S. then haul in for it, and you may anchor in what water you choose, from 12 to 11, 9, 8, and 7 fathoms, white sandy ground, and at what distance you will from the key; or you must bring the key S. or S. by

W. then you come by your lead on good sandy ground, as nigh as you will in 18, 16, 15, 12, 10, 8, 7, 6, and 5 fathoms water, taking care that you may be able to sail in all kinds of winds; you may go higher under the reef to an anchor, but danger may ensue.

Take always great care that in night time you do not come too near these keys for fear of being drove on shore by the current.

In turning between Morant keys and the east end of Jamaica, there is good 3 leagues turning ground; and as it happens but seldom that you do not descry some of the land before night, you must govern yourself by its bearings, to act properly in turning or sailing for the night.

NOTE—that about 11 leagues E. N. E. from Morant keys, and E. by S. 16 or 17 leagues from Morant points, there is an Overfall, having 20 and 16 fathoms water on it; but it is seldom met with, being very narrow.

About 10 or 11 leagues from Morant Point, between N. and N. N. E. lies the shoal, called the Formigas, or Pismires. This is a large shoal, stretching E. N. E. and W. S. W. about 10 miles in length, and 6 in breadth; the east end, on whose edge, which is steep too, there is generally a great swell, has 18 or 19 feet water, and several patches of coral, with only 14 and 15 feet; about a mile on the shoal, to the westward of the eastern edge, the water deepens to $4\frac{1}{2}$ and 5 fathoms, and farther in the same direction, to $5\frac{1}{2}$, 6, $6\frac{1}{2}$, sand, with spots of coral, where you may anchor. In standing over the Formigas, when you come to 7 or $7\frac{1}{2}$ fathoms, you deepen your water immediately from 10 to 15, and then no soundings at 20 fathoms. On the eastern edge the bottom is dark, and not easily seen in hazy weather, but to the westward it is lighter, and may be perceived at some distance.

The fall of the highland over Plantain garden river, which is the easternmost high land on Jamaica, bearing S. W. by S. it leads you on the Formigas; in the day they may be discovered by the discolouring of the water.

From Morant Point, or the East end of Jamaica, to the South Shore of Cuba, St. Jago, Cumberland harbour, Occoa Bay, and Cape Mayze.

FROM Morant Point N. N. W. are the Copper Hills, mentioned in the preceding article, as the highest land on the S. part of the island of Cuba; they are round and peaked, lying a little way inland, and may be descried from most parts of the N. side of Jamaica, making pretty much alike at all bearings from thence. Sometimes you may see them and the east end of Jamaica at the same time. The Copper hills bear from Montego point N. E. by N. about 34 leagues, and from St. Ann's bay N. and N. N. E. about 30; whence by their bearings, when they can be seen, you may know what places you are abreast of, on the N. side of Jamaica.

From the east end of Jamaica to St. Jago, the course is N. 6° E. near 41 leagues.

From ditto to Cumberland Harbour N. by E. $\frac{1}{2}$ E. about 44 leagues.

From ditto to Occoa or Spinx's bay, near N. E. by N. 54 leagues.

St. Jago is about 22 leagues to the eastward of the Copper hills. The Morro Castle lies in latitude $19^{\circ} 57'$ when the east point of the entrance of St. Jago bears N. E. then the innermost battery is shut in with the west point.

From St. Jago to Cumberland harbour, which the Spaniards call Goantanamo, and is in lat. $19^{\circ} 54'$ the course is nearly E. 12 or 13 leagues; and when you come so far to the eastward, as to bring Cumberland harbour N. distance 5 or 6 miles, then the land to the westward of the harbour, and St. Jago Morro castle will be in one, they bearing W. $\frac{1}{2}$ N. by compass, and the outermost land to the eastward E. N. E. From hence may be seen the High land of Grand

Ance on Hispaniola, bearing E. S. E. $\frac{1}{2}$ E. and then you will be in latitude $19^{\circ} 45' N.$ *

The going into Cumberland harbour is clearly expressed in the chart; the sounding is good 2 or 3 miles without the harbour, but there is a sunken rock on the starboard side going in, about $\frac{1}{2}$ of a mile from the shore, with only 20 feet water on it, where part of the Augusta's false keel was struck off; otherwise the shore is bold, with good room to work in it, except off the south shore, at the mouth of Augusta river, where begins a bank of sand and mud, by all means to be avoided. To anchor, you may bring Augusta river's mouth to bear S. W. $\frac{1}{2}$ W. and the battery point S. S. E. then you will have 6 fathoms water.

About 6 leagues to the eastward of Cumberland harbour, is the mouth of a little river, where many small vessels may lie. It is called by the Spaniards Peurto Escondido, or the hidden port; and has no more than 12 feet upon the bar; its opening being small, and the west point running out very narrow, it is sometimes very difficult to find out that river. The deepest water is close by the point, but there is anchoring to the eastward to the mouth of the harbour.

From Cumberland harbour to Cape Bueno, or Hoka point, the course is E. by N. $\frac{1}{2}$ N. near 17 leagues. Within this Cape is the Bay of Ocoa, called by our sailors Hoka bay, and named also Spinx's bay; the mark for anchoring in the bay, is to bring the easternmost point to bear E. S. E. distance about 1 mile and a half, and then the platformland on Hispaniola, will be in one with the point. The latitude is $20^{\circ} 6'$. You may anchor in any water from 35 to 7 fathoms, but 16 or 18 are the best depths; and there is plenty of fish to be caught with hooks. Two fresh water rivers run into this bay, the one named Rio de Mel, or Honey river, lies 2 or 3 miles to the westward of the anchorage; the other, which lies nearer, is to the eastward, and at the bottom of the easternmost gully, but it is generally dry, by reason of the scarcity of rain in this part. At most times there are at Hoka bay Spanish hunters, and shepherds, who will supply you with fresh provisions.

From Hoka point or Cape Bueno, to the pitch of Cape Mayze, the course is N. E. and the distance about 5 leagues.

From Morant Point or the East End of Jamaica, to the Navaza, Cape Tiburon, and Cape Donna Maria, on Hispaniola.

FROM the east end of Jamaica, to Navaza island, the course is E. N. E. $\frac{1}{4}$ E. about 21 leagues. But in sailing from the Navaza to the E. end, it is best not to attempt to steer to the westward of S. W. by W. for the following reasons: 1st. If you have a weather current, it would naturally throw you to the northward of the East end: 2d. If a lee one it would set you between Morant Keys and the E. end, and you should likewise see the land before you had got the distance.

The Navaza, a small island, not very high, and having nothing upon it, is steep all round, and lies in lat. $18^{\circ} 18' N.$

It has been observed that the current generally sets to the eastward or north-eastward, between the E. end of Jamaica, in the track of Navaza, and the W. end of Hispaniola; and to the northward or southward of this track the current has not been perceived. As you approach Navaza, you will frequently meet with light unsteady winds, and a weather current.

From the Navaza to Cape Tiburon, the course is E. southerly above eleven leagues. This cape appears on the top with many white places, like ways or

* The Mountains of Grand Ance, which are the westernmost high land of Hispaniola, are often seen also between Cape Mayze and Cape Nicholas; they may be descried at 30 or 40 leagues distance; and by their situation and bearing, become a good guide in working up through the Windward passage.

roads, and is the highest on the W. coast of Hispaniola; it makes the N. side of a small bay, called from it *Tiburon bay, the opening of which from side to side is but $1\frac{1}{2}$ mile over. Running with the sea breeze you must give the S. or lower point a birth of half a mile; and when you have opened the bay, so as to see the houses, push right in N. E. It shoals gradually from 15 fathoms to 7 or 6, where you anchor in good ground; the cape bearing W. N. W. 2 or 3 miles, and the S. point S. S. E. or you may bring the S. point to bear S. E. by S. distant half a mile, and then you will be right against the river or watering place.

All night you have a fresh land breeze at N. E. and all day fresh sea breezes at S. E. by E. If you moor, lay your best anchor to the S. W. and the small one to the N. E. Here you can find good fresh water, and plenty of good limes; but the inhabitants of a dozen houses, near shore, will not suffer you to cut any wood. There is generally a great swell in the bay, and a great surf on the beach, unless it is very good weather.

The course from the E. end of Jamaica to Cape Donna Maria, alias Cape Dame Maria, is E. N. E. $\frac{1}{2}$ E. 33 leagues, and from the Navaza to the same cape N. E. by E. 12 leagues. Cape Donna Maria is about $7\frac{1}{2}$ leagues to the N. of Cape Tiburon, the course being N. by E. or from Cape Tiburon to Irish bay point N. N. W. and from thence to Cape Donna Maria N. by E. The land between the two capes is pretty high, rugged and uneven, till you come within 2 or 3 leagues of Cape Donna Maria, when it is somewhat lower. There are soundings a good way betwixt them. There is also a small bay 2 leagues to the northward of Cape Tiburon, called Irish bay, in which wood and water are to be had; and about two leagues farther up north, off a small point, lies the Whale, a reef or ledge of rocks, 4 miles from the shore right off, which must be avoided; this ledge bears from Cape Donna Maria S. S. W. 3 leagues.

Cape Donna Maria lies in lat. $18^{\circ} 38'$ being about the height of Beachy head bluff, and steep to the water side, and of a reddish colour. There is a bay to the southward of the cape, which is called by its name, and is a good place for wood, water, and fish; it shoalens gradually, and you may run in till you bring the cape to bear N. $\frac{1}{2}$ E. one mile and a half; the white cliffs (to the southward of which is the fresh water) E. by S. the S. side of the bay S. $\frac{1}{4}$ W. and the large white house on the hill by the water side E. N. E. $\frac{1}{2}$ E. from 16 to 8, 7, 6, $5\frac{1}{2}$, and 5 fathoms water, good sandy ground all over. Within the cape in the bay, there is a low point with a small red cliff a quarter of a mile in length, which makes the cape remarkable. From this point lies a shoal right off a mile or two, which shows itself very plain; after you are clear of this shoal, you may steer into the bay in what depth you choose, keeping your lead going as you come in. There are no houses in Donna Maria bay, which may be seen, but the large white house above mentioned, and another about 2 miles to the southward by the water side. From Cape Donna Maria to Cape Nicholas, the course is N. E. or N. E. $\frac{1}{2}$ E. distance 32 leagues.

* Tiburon bay is about half a mile deep to the eastward. On the north shore it is deep to within two or three cables' length of the rocks, and within half a cable's length you have 6 and 7 fathoms, stiff clayish ground. On the E. and S. E. shores, you have 4 and $4\frac{1}{2}$ fathoms, fine muddy ground, within a cable's length, all round the shore. No shoals or rocks all over the bay as we could find. The edge of the soundings runs as the bay forms, half a mile from its head. You may anchor any where in the bay: but bring the point to the eastward, to bear S. by E. and the cape to bear W. by N. $\frac{1}{4}$ N. in 4 or 5 fathoms; from that to 8 or 9 is very good ground; wooding and watering in great plenty. You may either land your casks and roll them over a narrow neck of land into the river, or fill them in your boats with buckets. No refreshments of the meat kind, but some vegetables and fruits, as limes, &c. There is a small battery of 5 guns, mounted on a hill above the houses on the bay, to command the watering place, which would annoy small vessels. No shipping here: their trade consists chiefly of indigo, coffee, and cotton.

Directions for falling in with the Loggerhead Keys, at Cape Catoche, and to sail from thence to Campeche.

THE northernmost of these keys, which lies in $21^{\circ} 38'$ lat. N. is called by the Spaniards El Pontoy, and the southernmost Isle de Muger, or Woman's islands; our sailors name the first Loggerhead Key, and the second Key Mohair. When you imagine you draw near the bank of Cape Catoche, keep your lead going; and if you strike ground, and do not see the northernmost key, or the land, you may depend on it you are to the northward. Then haul up south till you see the land, and you may be sure it is one of the two keys; if you are to the southward of them, you have no soundings, until you see the main land.

Key Mohair lies W. S. W. and E. S. E. on the E. part it has a bluff, and on that the appearance of a castle, to the southward of which is the watering place. About 2 or 3 leagues to the N. W. of Key Mohair, lies Loggerhead Key, which may be known by the southernmost part, having many small sand hills: give that key a small birth, and you may anchor in 7 fathoms water, all gradual soundings. The two keys are joined by a long reef, which only breaks at the N. end of Loggerhead key; there are many rocks, and among them plenty of Jew fish.

To sail from hence to Campeche, steer N. W. keeping your lead going, and do not go further to the northward than 18 fathoms water, nor to the southward than 16 fathoms; but when you come into 17 or 18 fathoms, steer west by south and keep in that depth till you have run 80 or 82 leagues, or more if you think you have not made this distance good. Then haul up to the southward, till you come into the depth of water necessary for your vessel to ride in with safety, which may be in 4 or 5 fathoms, and then you will hardly see land from the mast head. You will lie smooth here in all winds, even if it blows hard.

Observe that 4 or 5 leagues to the N. of Point Piedras, or the W. point of Yucatan, there lies the shoal of Sisal which has not above 12 or 13 feet water; but your lead will give you timely notice, when you draw near.

When you are at anchor, you must send your boat away for Campeche; it lies S. E. 30 leagues from Point Piedras, and to the northward of the only high land on that coast.

Directions for sailing into and out of Campeche.

IF bound to the Bay of Campeche, keep in the lat. from $21^{\circ} 30'$ to $22^{\circ} 20'$ N. in order to keep between Cape Catoche and the Alacranes shoals, which lie 40 leagues N. W. by W. from the cape. You have soundings here about 30 leagues from the land, and all the way from Cape Catoche to Point Piedras you have regular soundings and white water. I would not advise any one to come nearer the shore than 5 fathoms, (then you just see the land from the mast head.) nor stand farther off than 15 fathoms, for there are 10 or 11 shoals and rocks, which lie in the form of an elbow from the Alacranes, and run as far S. as Campeche; this bank of shoals is very broad.

The course from Cape Catoche, (or rather the keys before it,) to Point Piedras, is W. S. W. You must run at least 80 leagues before you bear to the southward for Campeche; and go by your lead in chiefly from 5 to 12 fathoms, sandy ground. There is a bank which you must take care to avoid; it lies 5 or 6 leagues about W. N. W. from the town of Sisal, and has only 3 or 4 feet of water on some parts of it. All this land is low along the coast, and remarkable only in few places; 8 or 9 leagues S. W. of Point Piedras is Point Delgada, called by our sailors Cape Conduedo; by this Cape there is land which appears like islands at a distance, and one sandy hillock, having the appearance of a fort. Northward of Campeche, there is a hummock called Morro de Hina, and 2 or 3 leagues to the S. W. of the town another hummock or round hill, called Morro de los Diablos, or the Devil's Mount. The water is very shoal, off the town, for 7 or 8 miles; merchants' ships unload 3 leagues off; and then go into the hole close to the town, in 3 to 2 and a half and 2 fathoms water.

In sailing from Campeche, you must steer to the northward as far as $21^{\circ} 30'$ lat. N. in order to keep clear of Sisal bank, and when you find yourself in that parallel, and are clear of the bank, then you may stand according as you have wind, and to where you are bound.

The currents set sometimes to the N. W. but for the most part to the northward. The most prevailing winds are from N. to N. E. and E. to S. E. but sometimes variable.

The latitude of Campeche is near $19^{\circ} 50'$ N. long. from London, $90^{\circ} 30'$ W. Variation $8^{\circ} 35'$ E.

Directions for going to, and sailing into La Vera Cruz.

YOU must take care and be sure not to fall into the southward of $19^{\circ} 50'$, or between that and the latitude of $19^{\circ} 40'$, which is very high land, particularly one hill, called Mount Orisava, whose top is covered with snow: care must be taken not to bring that mountain to the westward of W. S. W. It may be seen in clear weather 30 or 35 leagues off. You must not fall farther to the southward, on account of the shoals, which are many and dangerous, to the eastward and south-eastward of La Vera Cruz, from which town the shore trenches N. W. by N. and is bold too. You must not strike ground above 15 leagues off, and then you have 30 and 35 fathoms water, which shoal gradually into 10 and 12 fathoms, within a league of the shore.

This place is easily distinguished by the castle of St. Juan de Ulua, situated on a sand called the Gallega, which forms the harbour; as you approach the castle you discern a high black tower, called the tower of Merce; you bring it to bear due S. per compass; then you will have a large church, (or hospital,) with a cupola on the top of it, on which is a round ball, with a cross; keep that ball on with the W. part of the Merce Tower, it will carry you clear along the edge of the Gallega sand, which generally breaks when the sea breezes blow. When you open the S. W. facing (or side) of the castle of St. Juan de Ulua, steer for it along in the inside edge of the sand, which you will see, to avoid two shoals of hard black rocks, having 16 and 19 feet water on them, with small spits of sand from each; on these shoals flags are placed on the approach of any Spanish vessels, but not for foreigners. You anchor under the walls of the castle, and moor to large rings, fixed there for that purpose. You lie two anchors out to the N. W. from your larboard bow, and one to the S. W. of your larboard quarter; your shore cables being on your other bow or quarter; and then you lie in 6 and $6\frac{1}{2}$ fathoms water. No tide here but a rise and fall of about 3 feet, which is augmented or lessened as the wind blows.

You have regular sea and land breezes from March to November; then you are subject to north winds, which makes a great sea, and dangerous riding in the harbour.

Lat. $19^{\circ} 11'$ N. long. from London, $96^{\circ} 1'$ W. Variation 4° E. [SEE THE PLATE.]

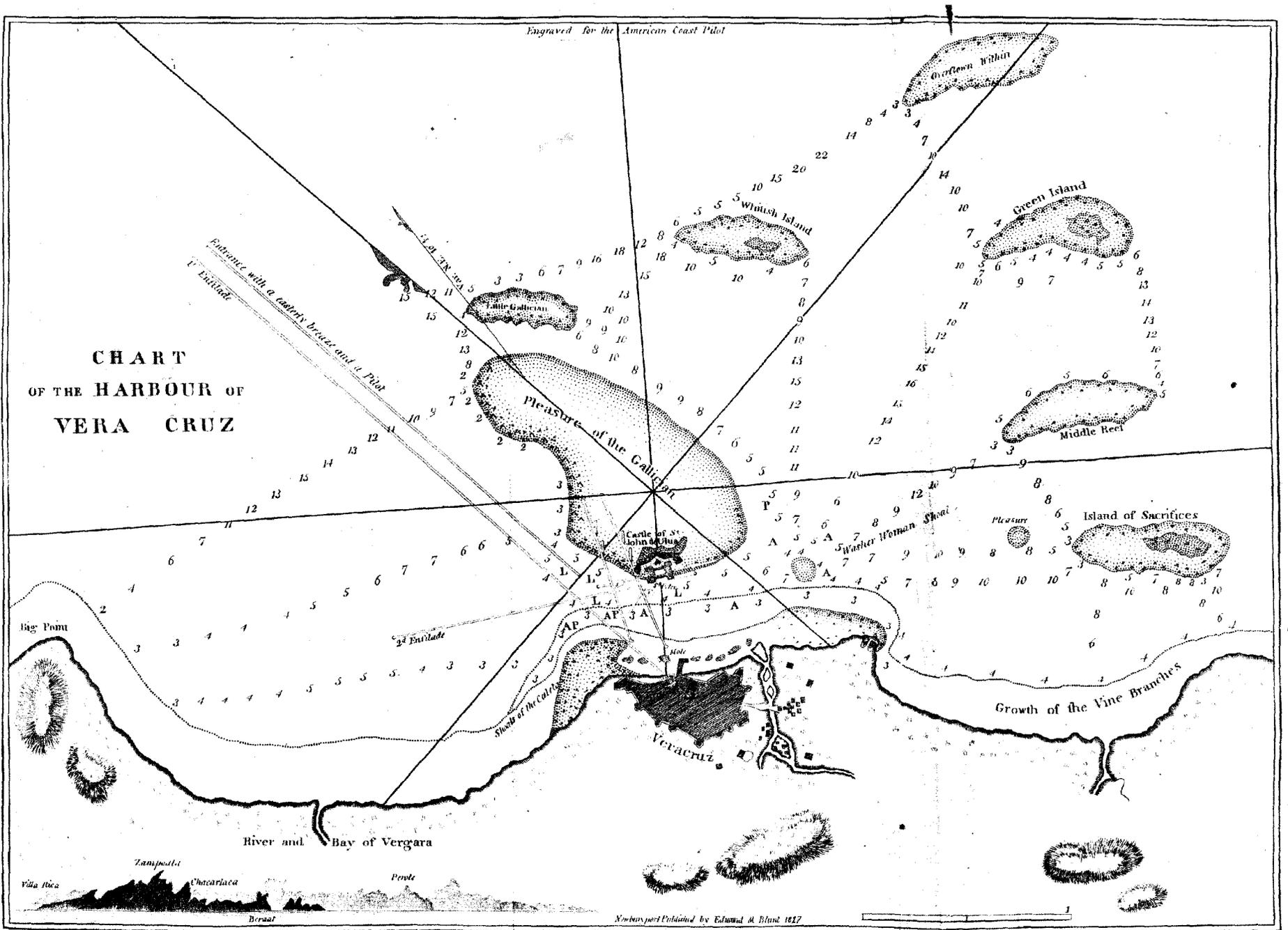
Directions for sailing to the mouth of River Balliz, or Balise, in the Bay of Honduras.

TAKE your departure from the island of Jamaica, in lat. $18^{\circ} 01'$ N. and make your course good about W. by S. $\frac{1}{2}$ S. as near as you can, for the distance of 90 leagues; between these places the current is generally setting to the northward; do not stint your full run to the westward, and keep a good look out for Swan's islands.

From Swan's islands steer for the Isle of Bonaca, S. W. by W. $\frac{1}{2}$ W. distance about 36 leagues; lat. $16^{\circ} 32'$ N.

From Bonaca, which is a large, high island, run to the west end of Rattan, the next and largest isle on that range; there are three small islands between these two, viz. Barburatta, Moratta, and Helena. Rattan is 9 leagues long with many hummocks on it.

CHART OF THE HARBOUR OF VERA CRUZ



From the west end of Rattan to the Southern four keys, the course is N. W. $\frac{1}{4}$ W. distance 18 or 19 leagues; and from Bonaca to the said four keys, W. by N. $\frac{3}{4}$ N. distance 37 leagues. This last is safest from the Spaniards, who often harbour in Rattan; but your departure from Rattan is the safest and more eligible to avoid running on the reefs, as the distance is so short; this is a matter of prudence depending on the captain. Observe to time well your departure from either place, to avoid danger in the night, when it cannot be discovered, as well as running a-ground where there is no possibility of saving a ship. The Southern four keys ought to be made in the forenoon, to get to anchor before night at Key Bokel, or farther in at Water key as the time will allow. The southern four keys are on the south end of a reef extending 7 leagues in length to the northward; on the north end thereof lie two keys, one long with tall trees, and the other a small spot with bushes on it, within a mile to the northward of the large one.

The southern four keys in lat. $17^{\circ} 12' N.$ The easternmost on the edge of the reef, is pretty round and high, with a large sandy bay on the east side; the westernmost is a long key with tall trees; the northernmost is the next smallest; when you come from the eastward, an opening shows itself in the middle; the southernmost key, which they call Hat key, is the smallest, with bushes on it, and is near the south point of the reef; from this to the easternmost key, the reef runs in the form of a half moon. When you make the sandy bay, on the last, or sooner, you will see all the rest, for they are not far asunder.

From the south end of this reef your course is west to Key Bokel, distance 7 leagues; this is a small spot, with low bushes on it, lying close to Turneff reef, a low intersected island, which is 10 or 12 leagues long, N. N. E. and S. S. W.

Glover's reef has its N. E. end due south, 6 or 7 leagues distant from the Southern four keys, and is reckoned, with reason, a very dangerous place. This reef, which is named by the Spaniards the Long reef, is at least 7 leagues long, in a direction S. W. by W. and N. E. by E. No keys are to be seen on it, except a small spot or two, towards its north end; but on the south end there lies a range of 5 keys at least from east to west.

From the S. W. point of the Southern four keys to Key Bokel, the course is W. $\frac{1}{2}$ N. There is good anchoring at this latter key to the northward, and within 1 or 2 miles of it; when you run out you deepen your water, but two cables' length in is far enough on the bank in 4 and 5 fathoms water. N. N. W. winds make the roughest riding here; it is a rendezvous for Spaniards, therefore a good watch at night is necessary, for fear of the small craft which lurk under the land.

From Key Bokel to English key, the course is N. W. but the best to steer is N. W. by N. to open the channel bounded on the south by English key, and on the north by Gough's key; these two are remarkable, being the southernmost on the main reef, with trees on them; they bear from Key Bokel, N. W. by N. and when you come near Gough's key you will see a small spot with bushes on it to the eastward; besides this you perceive three keys more, on the same range to the northward of them, viz. Curlew, Paunch gut and Serjeant's keys; Serjeant's key, the middlemost of these, is the largest, and has a large sandy bay. You will observe that they are all situated on the main reef, which runs a vast way, and for the most part north and south.

When you have the aforesaid channel open, and English key to bear west of you, steer a little to the northward of the middle of the channel, towards Gough's key, to avoid a rocky shoal that runs to the northward from English key; then steer in W. by N. $\frac{1}{2}$ N. but you must not quite depend on this, without keeping your lead going, because the channel is narrow, the entrance being about a mile broad, and narrower within.

To the N. W. of Gough's key is Water key, which is pretty long, with tall trees on it; from the south end of it runs a spit, a pretty good way into the channel. When you get to the westward of this, haul up N. by W. and to know your time for this, observe a small key very near the north end of Water key (not on the reef) half a sail's length open with the northward of the said key,

you will then have Serjeant's key shut in with the south end of Water key, and begin with the narrowest part of the channel; so keep your lead going, and if you get hard bottom you are on the west shoal, called the Twelve feet bank; but on the east side, by Water key, it is soft ground. For your better direction to avoid running aground on either side, keep on to the northward, as before, until you see Serjeant's key, the north part opening with the north part of Water key; then you will be in what is called the Blue hole, where, in a small space all round you, you will scarcely get bottom with 20 fathoms line; when you are thus in the Blue hole, run W. by N. and W. till you open Gough's key, the half out open with the south end of Water key; keep it so until you get over a bank which runs quite across; the best water you can carry through is 13, 13½, and 14 feet water; there is no danger should you ground on it, and it is only a north wind that should make you uneasy.

From this bank to the mouth of River Balliz, the course is N. W. northerly; you will have on your starboard hand the range of Drowned keys, on which side the Stake bank (part of which may be seen) lies more than half way to the river's mouth; it is bad anchoring near this bank, though you may have 6 fathoms water. On your larboard hand you will descry a cluster of keys, called the Triangles; and within a league of the river's mouth, due south from it, is a small bank, called the Middle Ground; to the northward of which you may go in 14 feet water, and to the southward of it, in from 3 to 5 fathoms. There is but 7 feet water on some parts of this shoal; the best place for anchoring is right off the river's mouth, both for the facility of coming on board, and going on shore, and for having the advantage of the crafts which come down the river; here you lie in 16 feet water, and may remove in moderate weather into a deeper birth.

The River's mouth, from the Cross bank in the Blue hole, is between 4 and 5 leagues broad, it lies near the north point of the main land a-head of you, by the course prescribed; it is rarely without some vessels at anchor; but if you are at a loss for the opening of the river's mouth, and choose the vessels for your guidance, rather steer for them to the northward, than to the southward, because you risk grounding on the Middle Ground, which is like to be between you and the latter.

If no vessels are to be seen there, look attentively, and you will descry one tree taller than the rest, with a round top; this stands on the north side of the river's mouth, showing about half a mile from the main aforesaid, or Mother tree bush.

A stranger must return the way out which has been directed to come in; and while he is within the Cross bank, he may make long stretches from the north to the south side, turning with the trade winds; but when he comes into the Blue hole, he must take notice of the marks, and mind his lead as before. You can be bolder to the northward, when without the Stake bank, than you can to the south side; that is, while within the Cross bank, keep your lead constantly going, and venture no farther than 5 fathoms to the eastward of the Triangles, because it is rocky, with sudden shoalings. This caution is also for large ships going out of the bay loaded.

Other General Directions.

In coming between Gough's and English keys, steer in W. N. W. until you shut in Serjeant's key, with the south part of Water key; then steer N. by W. till you bring Gough's key on, or in a range with water key; a course N. W. $\frac{1}{2}$ W. will then carry you in the best of the channel over the Narrows, taking particular care not to shut in or open Gough's key with Water key; for if you do, you will certainly be a-ground on one side or the other; after this, when you shut Bannister's Keys with the Drowned Keys, you are over the Narrows; you may then steer in N. W. for the River's mouth, and come to an anchor, as in the foregoing directions.

Directions for sailing from River Balliz, in the Bay of Honduras, through the South Channel.

AS soon as under weigh, steer S. by W. in gradual soundings, from $3\frac{1}{4}$ to $3\frac{1}{2}$, 4, $4\frac{1}{2}$, and 5 fathoms; about 7 miles to the south of Balliz, is River Shebon or Sherborn, 2 miles off which, E. by S. lies a bank, about the bigness of a 40 gun ship; it is full of oysters, and has not above 7 feet water. Abreast of Shebon you will have 6 and $6\frac{1}{2}$ fathoms water, for many casts, and when the S. part of the Triangles bearing E. about 4 miles, and the S. end of Water key is in one with the N. part of the Triangles, you will have but 4, $3\frac{1}{2}$, $3\frac{1}{4}$, 3, and $3\frac{1}{2}$, then 6 fathoms; in this last depth the north end of Middle Long Key is touching the south part of the Triangles, this shoals in spits to the westward of the Triangles; but keep well to the westward, and you will find sufficient water; steer S. by W. till you bring the north part of the Triangles N. E. and the south part E. S. E. then steer S. you will have a quarter less 5, 5, $5\frac{1}{2}$, and 6 fathoms, soft ground, keeping about 4 or 5 miles from the main. This channel is about 3 leagues broad, and you may ply, and stand well over to the keys of the main.

When you have the south part of the Triangles east, and distant 5 or 6 miles, steer S. by E. till you get the length of a bluff point, about 8 leagues from River Balliz; it is called Colson's point; E. N. E. $2\frac{1}{2}$ miles from it lies a shoal, in part dry. This point bearing W. S. W. 4 miles off, you will have 4 fathoms water.

To the north of Colson's point is a small creek, called Salt Creek; here the land rises much in the country, and more to the northward are many hills and hummocks; under the southernmost of which is a large river, called Mullin's river, very commodious for watering; within one and a half mile of the mouth of this you may anchor in 4 fathoms. From thence steer S. S. E. half E. at three miles distance from the land you will have gradual soundings from 5 to 8 fathoms.

From Colson's point to Bawdy point, as it is called by the bay men, the course is S. E. and the distance about 8 miles.

Directions for sailing out of the Bay of Honduras.

WHEN you weigh anchor from the vessels, at the mouth of River Balliz, steer away south for the westernmost part of the Triangles, until you see a grassy swamp below Rouge's point (the southernmost point of the river) then you are clear of the Middle Ground; then haul your wind as close as you can lie, until you come into $3\frac{1}{2}$ fathoms water, off the Triangles, but come no nearer. Then tack, and stand towards Stake bank, which you will see time enough to go about, you then tack again, and stand to the southward, taking care not to come into less than $3\frac{1}{2}$ fathoms water; at this time you will see Gough's key, which you may keep open a quarter of a mile, or shut in at that distance, till you come into the Narrows: these you will know by opening of Bannister's key; then you are close to the Narrows, and must have Gough's key in a range with the southernmost part, taking great care not to open it above a handspike's length, nor shut it in above that length, till you are above the Narrows and in the Blue hole, where you will have no ground. Then S. E. from you, about a mile, lies a spit, to the northward of which you must go, between it and Water key bank. When you have weathered that spit, steer away for the westernmost part of the Long key, which will carry you right through safe between the two banks, and run to the southward till you open Serjeant's key; then you will be mid-channel between Gough's and English keys, which will be E. S. E. You must go into less than $3\frac{1}{2}$ fathoms; then go about and stand over for Water key bank, into 3 fathoms, where you may come to an anchor. In weighing from thence take care to come no nearer English key than 5 fathoms. From English key S. E. near two miles, lies a shoal, which appears very plain, and which you must take care of in turning out; the safest way is to go to the northward of it.

General and particular directions for Port Omoa.

If from Black river, on the Moskito shore, you are bound to Port Omoa, or San Fernando de Omoa, as it is called by the Spaniards, you must sail to the southward of the isles ~~Bonaca~~ and Rattan, passing between Rattan and the Hog's islands; and without a thorough knowledge of these parts, you are not to pass southward of the Hog's islands, on account of the Salmedina reefs.

You steer from Black river for Bonaca W. N. W. till you come to this island, which is 23 leagues distant from it. Then you steer W. S. W. in order to pass between Rattan and the Hog's islands, which course is continued till you get the island Utila in sight; then you are to steer W. or W. by N. as you choose.

To pass to the southward of Utila, you must take great care not to come nearer than 2 leagues to this island, on the N. W. or S. sides, unless you are very well acquainted with it. When you have made the west point of Utila, then you sail for Point Sal, which lies 10 or 12 leagues W. S. W. but you must steer W. S. W. $\frac{1}{2}$ S. to prevent being driven away by the N. W. current which would carry you on Glover's reef; with a W. S. W. $\frac{1}{2}$ S. course you make the land to the southward of Point Sal, and then come to the N. W. of the said point.

You then sail along as far as the low point of Puerto Cavallo, which lies 8 or 9 miles N. E. by E. from Puerto, or Port Omoa.

The windward, or larboard side of Omoa is a low sandy point, running off towards the sea, full of high mangrove trees; and having a look-out house, which is very discernible. This makes the bay of Omoa very safe in a north, and equally secure in all winds. You may come as nigh the windward point as you please; quite close to it there are 6 fathoms, and about a cable's length from it, 17, 16, 15, 14, 12, 9, 8, 7, 6, 5, $4\frac{1}{2}$, and 3 fathoms water; this depth runs from the point as far as the river; you will have from 17 to 12 fathoms, when you come to sail in, and you luff as near as you can to the point. If you cannot lie in the bay, it is best to come to an anchor in 12 fathoms, and warp up in the bay and moor the ship. You must not come too near on the side of the river, nor where the houses of the town stand, but you may go as nigh as you please to windward. You will have twelve fathoms water near the wharf at the fort.

The river lies to the westward of the town, and has the following depths; from 12 to 9, 8, 7, 6, 5, $4\frac{1}{2}$, 3, and $2\frac{1}{2}$ fathoms water: about a cable's length from off its mouth, you will have 7 fathoms, and so on to $2\frac{1}{2}$. When you are at anchor at Omoa, if the weather be clear, you may see Cape Tres Puntas about W. by N. or W. N. W. The land to the westward of Omoa is very high, and remarkable by 3 or 4 peaks, or sugar loaves, considerably higher than the rest.

Directions from Port Omoa to Golfo Dulce, at the S. W. end of the Bay of Honduras.

THE course is westerly to Point San Francisco, or Buenavista, about 6 miles from Omoa, and which is very low. Then it is W. N. W. to Cape Tres Puntas, 8 or 9 leagues from Point St. Francisco; between the two points, keeping about 4 miles from the main shore, you may come to anchor in 20 or 15 fathoms, and less water, muddy ground; near the latter point there is a sandy bar, running a league into the sea, before the mouth of a large river, which bar you must be sure to avoid. When you have sailed about 13 or 14 leagues then you may haul W. by N. leaving Cape Tres Puntas on your larboard side, about one and a half league off; and having passed that cape, you open Golfo Dulce, and steer for it S. by W.

The S. W. bottom of the bay of Honduras, into which you enter after having doubled Cape Tres Puntas, is generally known by the name of Gulf of Amatique; and Golfo Dulce, that is, the mouth of the river, called also Guatimala

Lagoon, lies 8 or 9 leagues from Cape Tres Puntas, you must go by your lead, and will have from 9 to $3\frac{1}{2}$ or 3 fathoms. The mouth of the river shows itself very plain; you bring it to bear S. S. W. and anchor in what water you please, mooring the ship S. E. and N. W.

Five or six leagues N. E. by E. of Golfo Dulce, and within the land, is the Golfeto, or Little Gulf, called formerly Pirats Lagoon, and Lake St. Thomas; it is 3 or 4 leagues broad, and as many deep, the land round it being very low near the sea, with large manganeel bushes, but very high within the country. The little Gulf is known by a remarkable table mountain to the southward of it.

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Directions for sailing from Black River, on the Moskito Shore, to the Bay of Honduras, through the entrance of the Main reef at the Zapodilla Keys.

FROM Black river to Bonaca, the course is W. N. W. 22 leagues. From the west end of Bonaca, to the east end of Rattan or Barburatta island, it is W. S. W. 5 leagues. The harbour is about one third down the island on the S. E. side; it is a very narrow entrance; in going in you have 6 and 7 fathoms, and then you deepen your water, as you advance; keep close to the keys on the east side in going in; the harbour trenches towards the N. E.

Observe there is a small shoal off the east point. When you are going into Rattan harbour, after you have passed the point on the starboard side, which runs off a little way, there is no more than $3\frac{1}{2}$ fathoms; do not borrow too near that shoal till you are shut well into the harbour, which is noble and spacious, and where you may anchor in 10 or 12 fathoms; the deepest water is on the north side, and the best lying is to the eastward, up the harbour.—There is a small spot, right opposite the entrance, on the north side, that has no more than 20 feet water on it; the soundings in general are very irregular.

From the west end of Rattan to the entrance through the reef by the Zapodilla keys, the course is W. 29 or 30 leagues. From the W. end of Rattan to Utila it is S. W. 6 leagues. From Utila to Triumpho de la Cruz it is S. by W. $\frac{1}{2}$ W. 12 leagues. From Triumpho de la Cruz to Point Cavallo it is S. by W. 10 leagues. From Point Cavallo to Port Omoa, S. W. by W. 3 leagues. From Port Omoa to the entrance through the reef by the Zapodilla keys, N. N. W. 9 leagues.

You may know the Zapodilla keys by the five dry sandy keys among them, which are without shrubs or trees, except that on the starboard side, on going in, on which there are two dry trees which appear like a schooner at anchor, when you first make them. All the keys to leeward are bushy and full of Zapodilla trees. In the passage through there is $4\frac{1}{2}$ fathoms, and there you have but two casts before you deepen your water to 6, 7, 10, and 17 fathoms. This makes it the best passage for large ships; the course through is W. and W. by N. when you are over the reef, it is termed the harbour of the Honduras.

From the Zapodilla keys you steer W. N. W. between 4 and 5 leagues, to avoid several ugly shoals and rocks which lie to the northward of the passage through the keys: and when you bring Point Placentia to bear N. by W. or N. $\frac{1}{2}$ W. steer for it; it will be about the distance of 6 leagues from you.—From Point Placentia to Settee river the course is N. by E. $\frac{1}{2}$ E. 6 or 7 leagues. From Settee river to Colson's point it is N. 6 leagues. From Colson's point to the river's mouth N. $\frac{1}{2}$ E. 6 or 7 leagues, where you anchor, taking care of the Middle grounds.

Observe that after you have got through the Zapodilla keys, and up as high as Point Placentia, you may anchor all along the main, in any depth of water from 5 to 17 fathoms, keeping at the distance of 2 miles from the shore, except at Colson's point, where there is a bank or shoal due E. from the point, which has not more than 7 feet water on it; it lies between 2 and 3 miles off the shore, and extends due S. 4 miles.

Directions for sailing into and out of Truxillo Bay.

IN sailing from Camaron to Cape Honduras, the course is about W. $\frac{1}{2}$ N. 20 leagues, lat. $16^{\circ} 2' N.$ and long. from London, $86^{\circ} 9' W.$ and to the island Bonaca, W. N. W. 2 leagues, lat. $16^{\circ} 32' N.$ long. $86^{\circ} 57' W.$ This island bears about N. N. E. 3 or 9 leagues from the cape. The next island is Rattan, which bears from the cape about N. W. 12 leagues, lat. $16^{\circ} 25' N.$ long. $86^{\circ} 30' W.$ There is Port Royal harbour on the eastern part of the island, and another harbour on the southernmost part, called Calket's hole. The next island to Rattan is Utila, which is about 3 leagues in length, and has a harbour on its S. side.

Coming from the eastward to Truxillo bay, be sure to make the land to the eastward of the cape; it is low by the water side, but up in the country it rises high; when you have run down your distance, and got the cape to bear S. W. and Bonaca N. or N. by W. steer more southerly for Point de Castilla, or the pitch of the cape; your soundings along shore, at one mile distance, will be 20 fathoms, muddy ground. Run S. W. and S. S. W. till you bring Point de Castilla to bear N. N. E. or N. by E. from you; give the point a good birth, then haul up E. and E. S. E. you will have about 9, 10, or 11 fathoms off the point; run up to the head of the bay close to Old Truxillo town, and come to an anchor in what depth of water you please, soft muddy ground; you will have coming in, 18, 17, 16, 15, 12, and so on, fathoms water. This bay is about 4 leagues wide, and 5 deep; there is only one shoal in it, called Luke's key, which lies on the south shore, clear from you: and the rest of the bay is very clear, except close to the shore.

There are no tides here. The latitude has been observed $15^{\circ} 5' N.$ and the longitude $86^{\circ} 06' W.$ from London. The variation $8^{\circ} 40' E.$ The easterly wind blows here most of the year; but the bay is open to N. W. and westerly winds.

Coming to an anchor you are to bring Point de Castilla to bear N. N. W. to N. W. about one mile off shore.

Description of the Coast between Black River, on the Moskito Shore, and San Fernando de Omoa; with directions for sailing, anchoring, &c.

BLACK RIVER lies in lat. $15^{\circ} 56' N.$ and Cape Camaron, called also Cape river, in lat. $16^{\circ} 00' N.$ the course between the two is W. by N. 3 leagues. Praunow creek lies 2 miles to the westward of Cape river; the opening of the latter river shows itself very plain; on the E. side appears a high sand hill, and on the west side there is a sandy spit stretching a mile into the sea, and which you must be careful to avoid.

Two miles W. $\frac{1}{2}$ S. from Praunow creek lies Zachary Lion's creek, whose high land right over it, has the form of a sugar loaf, not unlike to that over Black river, but distinguished by a saddle mountain a little to the westward. The Little rocks are one league distant W. by S. from Zachary Lion's creek; the land over them is double not very high, and the southernmost appearing above the other.

Four leagues W. S. W. $\frac{1}{2}$ S. from these, are the Great rocks, which show themselves like a round bluff; close to the seaside, about a mile from shore, is very foul ground, mixed with sand and stones, which you may avoid. The bluff point of the Great rocks to the eastward, and Old Roman point, make Limehouse bight. Between the Little and Great rocks, there are two rivers, the highest to the Great rocks being called Great Piaw, and the other Little Piaw river.

Limehouse river is 3 miles distant S. W. by W. from the Great rocks; it is known by a saddle mountain, with a sugar loaf on one side, and by another sugar loaf on the other side, whose top appears to be broken off.

New Roman river lies $2\frac{1}{2}$ leagues farther W. N. W. near its mouth, which is very wide, and always open, are 2 or 3 black sand hills; Old, or Great Roman river, whose opening is also very wide, is 4 miles W. N. W. from this. Between the two rivers you meet with a bank of stones and sand, 2 miles from the shore, and about 3 miles long; it lies nearly east and west; to get clear of this bank, you steer from New Roman out of the Bight W. N. W. and pass to the northward, until you come to Three leagues point, then you steer right for Cape Honduras. The point is easily known by a round sand hill, covered with many palmetto trees, of an inferior size.

Cape Honduras, or Point Castilla, lies about six leagues W. by N. from old Roman river; and 10 leagues to the W. of this cape, you meet with the Hogs islands, which are two high islands southward of Rattan, with 18 small sandy keys, which extend from the S. E. of the easternmost island, to the westernmost one, on the southward side of both; to the N. W. of the westernmost isle there are 3 or 4 of these sandy keys, which afford no passage, but you may pass between the others. A rocky reef stretches along to the southward of these two islands, 2 miles distant from the shore, and running from E. S. E. to N. W. You must not come nearer on any side of the westernmost island than one league; but you may approach the easternmost as near as a mile, and at its W. end you come to anchor in small vessels with a sea breeze, but it is very bad with a north. On the N. side of this island is the best channel to anchor at the west end; you may sail on boldly, and keeping a good look out for a few rocks, under water, which are close to the shore, you come in a bay to an anchor, in 6 or 7 fathoms water, good sandy ground. There is a channel on the south side, but you are obliged to go between the reef and the keys, and must be well acquainted with it, before you attempt to pass through it.

About 5 or 6 leagues to the south-westward of Cape Honduras lies the town of Truxillo, on the south side of the bay of that name; and 5 or 6 miles to the north of this town, you meet with a little sandy island called Luke's key. The Barcadere of Truxillo is about 3 miles to the west, with a small island before it, called Isla Blanca, or White island, near which you have 4 fathoms water. West of the Barcadere lies Horse point, with a rocky reef running east and west 4 miles off the shore.

Having sailed seven leagues S. by W. from the Horse point, you come to a low sandy point, running a good way into the sea, which the bay men have named Pull and be damn'd point. Between the two points is a deep bay, wherein you may anchor in 5, 4, and 3 fathoms water. It is called Cutchalutana bight, and is renowned for its turtles and manatees, or sea cows.

From this bight the coast runs in a westerly and W. by N. direction for 20 leagues, as far as the Bishop and his clerks, and in that interval has many rivers, the principal of which are Congrehoj, a river remarkable for its high peak, and river Leon, one league to the eastward of the Bishop and his clerks, which is a noted place of trade with the Spaniards. All along this coast you may anchor with the sea breeze, but it is very bad in a north, except at Porto Nuevo, to the N. N. E. of Truxillo, within Cape Honduras, where ships are well sheltered against that wind.

The Bishop and his clerks, under which is good anchoring, are three or four rocks above water, one mile from the shore, and about 6 leagues distant S. W. from the south end of Utila island, which lies at pretty near the same distance S. W. by W. from the S. W. end of Rattan. In the middle of the channel, between these rocks and Utila, are the Samedina reefs, which render that passage hazardous.

Six leagues N. W. by W. from the Bishop and his clerks, lies the point called Triumph de la Cruz by the Spaniards, and Point Sal by the bay men: it is known by three or four rocks, pretty high above water, and larger than the Bishop and his clerks; they lie about half a mile off shore, and there is a little channel practicable for small craft; the point off the main shore appears with little hills, as broken land, high and low.

The anchorage is under this point to the westward, and right before the open-

ing of Puerto Sal, a little harbour for small vessels; in 13, 17, 16, and 15 fathoms water, there is rocky ground, but from 13 to 12, and less, you may come with safety to an anchor, in fine muddy ground.

The low point of Puerto Cavallo lies about 10 leagues W. by S. of Point Sal; there is no high land between the two points, and you meet with two large rivers, viz. Rio de Ulloa, commonly called Rio Lua, and Chamalucon, at both of which you may anchor, in very good muddy ground, with a sea breeze. To the westward of the Low point, the anchorage lies in 7, 6, and 5 fathoms water, sand, but without the point you have muddy ground.

From Puerto Cavallo to Puerto Omoa, which is about 8 or 9 miles farther to the S. W. by W. it is all very high land; five or six broken hills, appearing red, lie close to the sea between the two places and off these red hills, a stone bank stretches to the northward into the sea, about $1\frac{1}{4}$ mile. You must go no nearer in shore than 8 fathoms water.

Directions for sailing to the Moskito Shore, Rattan, and Bay of Honduras, &c.

YOUR course from the west end of Jamaica, or Negril by south, to Santanilla, or Swan's islands, is W. by S. a little southerly, distance 90 leagues; then if you don't make those islands, you may safely haul up S. W. by S. and not more southerly, especially from the first of November to the first of April; these months are subject to frequent north winds, that blow excessively hard, and make a prodigious sea, which with the currents, then rapid and uncertain, might make you fall in with Carrantasea shoals, called also Hobby's keys, both very dangerous in the night, or thick weather, which you are almost sure of meeting with in north times.

Those dangers lie about 25 leagues to the E. by S. of Cape Camaron, and the same distance S. S. E. from Swan's islands, whose latitude is $17^{\circ} 25'$ a S. W. by S. course, will much about run you in with Cape Camaron, between which and the above shoals, the shore is bold too, and all low land, till you come to Black river, over aback of which, begins the high land, which continues to the westward; when you have made this high land, you may haul up more southerly for Black river. Your mark for anchoring is to bring the Sugar loaf hill (so named from its shape) to bear south, and to stand in 12 fathoms, then anchor; you are not to stand nearer than 12 fathoms, on account of the many anchors left there by trading vessels in the north times. This is a wild open roadsted, and the bar is too dangerous for strangers to attempt it with their own boats, almost all the year round.

Your course from hence to Guanaja, or Bonaca island, as we call it, is W. N. W. about 20 leagues distance; but with a tolerable breeze of wind you will soon rise it, as the island is very high, and may be seen from Black river bank in a clear day.

But if you should not have occasion to call on the Moskito shore, from Swan's island to Bonaca is S. W. by W. $\frac{3}{4}$ W. 38 leagues. To sail into the harbour of this island, coming from the eastward, run down the south side thereof; a range of rocks, or rather small keys, trenches down on that side, and one of these in particular will show itself in a semi-circular form, from which it has been called Half-moon key; when you see this range, you run close with the latter key; giving the others a good birth as you pass by them, and continue so till you bring a small sandy key abreast of you, then haul up close round this key, until you are shot in within it a large cable's length, and the eastward with all. In letting go your anchor, you are to observe, as you shoot in, that a key will appear to leeward, or to the westward of you; it is called S. W. key; be sure to leave this two thirds of the distance over from Sandy key, or rather more, on your larboard hand; for between these two keys, and above mid-channel over to the eastward lies a very dangerous shoal; on this shoal there is hardly 8 feet water

in some places. You will likewise descry three keys more on the larboard side in going in.

To the S. W. of this island lies the island Rattan, in lat. $16^{\circ} 25' N.$ —W. S. W. $\frac{1}{4}$ S. 148 leagues from the west end of Jamaica, and N. N. W. 11 leagues from Truxillo bay on the continent. Towards the sea, on both sides, it is mountainous and woody; on the south side are harbours from one end to the other, and in the dry season, some of them without fresh water. The most remarkable is New Port Royal; it is a very fine harbour, the sea breeze meeting no obstruction, blows quite through, and renders the place extremely healthy: the air is there cooler and more temperate than in most parts of the West Indies.

In sailing from Rattan for the Bay of Honduras, you are to time your departure in the close of the evening and not before; then you will steer N. W. or N. W. a little northerly, which will run you in with the Southern four keys, distance about 20 or 22 leagues; therefore you must be particularly attentive to sail your vessel with such canvas, as to the weather you may have, or the way she may make through the water, taking also great care to keep a very good look out; never attempt to run above 16 leagues by the log, as the currents are very swift and uncertain, which has proved very fatal to many ships.

As soon as daylight appears, then make what sail you can, still steering the same course, and you will soon rise the Southern four keys; run well in for them on your starboard hand, and steer west about 6 leagues for Key Bokel, to which you will give a good birth on your starboard side likewise; you may know this key by its being round, low, and small, with bushes on it, and particularly by a large range of keys to appearance, although they are but one key: it is called Turneff, and extends a good way to the northward of Key Bokel.

If it is late, and you have not daylight enough to run for English key channel, or Coseen, or Corsiana (called St. George's key) which last is safest, especially for vessels of large draught of water, that is from 12 to 16 feet, as it is a straight, clear channel, while the other is very narrow and crooked; you may haul up round Key Bokel inside, and stand into 5 fathoms water, and anchor; abreast or in shore of you will appear small inlets, or lagoons; but if not too late in the day, you may with a good breeze get clear in, especially at Key Cosina.

From Key Bokel, after giving the southernmost part of Turneff, which is then near you, a good birth, your course is N. W. by N. which will soon lead you in sight of the shipping lying at Key Cosina, as well as of the key itself. At the same time you will make to appearance, a head of you, a large high bluff which lies more inland, and to the west of Key Cosina; it is known by the name of Royden's bluff; keep this bluff open a cable's length of Key Cosina, and run in with that mark till abreast of the south end of the reef, which is just without the shipping; when abreast thereof you must haul under the reef, and not far from it, and you may bring up in 17 and 18 feet water, but a better place is a little farther up to the northward, inside the reef, called the blue hole, where you have clay ground, and from 18 to 20 feet water.

Key Cosina lies in the latitude of		$17^{\circ} 34' N.$
Southern four keys	do.	17 12
Key Bokel	do.	17 13

N. B. From the westernmost of the Southern four keys, trenches a reef, which breaks $3\frac{1}{2}$ or 4 miles, due S. S. E. and of which care must be taken.

A dry sand bank, about a mile long, lies from Cape Camaron N. N. E. $\frac{1}{2}$ E. distance 59 leagues, and from Swan's islands N. by E. $\frac{1}{4}$ E. 25 leagues.

Description of Porto Bello Harbour.

At the entrance of the harbour there are two small islands, which lie S. by E. $\frac{1}{4}$ E. and N. by W. $\frac{1}{4}$ W. from each other; between them you sail, or warp in, and have 15 or 16 fathoms across, all soft ground. Due west from the northernmost island, and about 3 cable's length from it, lies a bunch of rocks, called The Calmedinas; you have 20 fathoms, soft ground, between these rocks and the is-

land. You may go in and out on either side of them, they being steep too all round, and always showing themselves.

The north side of the harbour is steep too ; on the south side there is a reef along it, about a cable's length from the shore.

You may anchor any where, taking care not to go too high up in the cod of the bay.

Wood and water are in great plenty here ; you may either land your casks and roll them about 10 or 12 yards, or fill your boat with small casks. Cattle may be purchased, though not cheap nor good ; vegetables there are none to be procured, but you have plenty of fish and turtle in the season.

To the northward and southward of this harbour there are very good bays, with many fresh water rivulets, where any fleet may ride and fill in safety ; there is no danger but what is discernible.

Lat. 9 deg. 33 min. N. longit. from London 79 deg. 25 min. W. Tides none, but a rise and fall of about 6 or 7 feet. Variation 9 deg. 40 min. E.

The winds are generally between the north and east, except in the hurricane months ; and then they are mostly from the S. W. and W.

Directions for sailing into and out of Arenas Bay, to the northward of Carthagena, on the Spanish Main.

If you are bound from Jamaica to the Spanish Main, you must work up to the Yallahs, or the east end, and steer S. E. to make your course good S. S. E. that you should fall in with the high land of St. Martha, or the river Magdalen, and the hills of Morro Hermoso, on the west side of the river, in 11° lat. N. The distance from Jamaica is 145 leagues on a S. S. E. course. You meet always with a westerly current in crossing over, and coming near the river you have white water 30 leagues off. The high land of St. Martha is the highest all along the coast, and Point Occa is a bluff point.

Coming in with the coast in the night, approach it no nearer than 22 fathoms. The course from Point Occa to Morro Hermoso is W. by S. 10 leagues ; from that to Point Arenas S. W. and S. W. by W. 15 leagues, and then to Carthagena S. W. by S. and S. W. 15 leagues ; the land between Morro Hermoso and Arenas bay, is high hills, the most remarkable of which are Samba hill, that appears like maiden's paps, and another next to Arenas, called Galera de Samba, that shows like a barn. Arenas point is all low, except the volcano, which appears flat and round.

The danger going into Arenas bay, is a reef at the N. E. part ; give it a good birth of 2 or 3 miles, and steer S. S. W. and S. W. by S. in 7 or 8 fathoms water. The next shoal is the 4 fathoms bank, which bears W. N. W. about three miles ; steer S. by W. and south round Point Arenas in 6 or 7 fathoms, keeping at half a mile or one mile distance, then steer up S. E. and E. S. E. and you may anchor in what depth of water you please, from 3 to 20 fathoms, good holding ground.

The bay is about 6 or 7 leagues deep, and 5 broad, with many lagoons where small ships may lie in 2 or 3 fathoms water ; large ships lie in 8 or 10 fathoms. There are two small keys above water, in this bay, one bearing S. E. from Arenas point, the other about S. by E. There is a bank which lies about N. N. E. 2 leagues from Point Palmerita, with only 9 feet water on it. This bay lies about N. E. by E. and S. W. by W. no winds except N. W. can hurt you here, and they blow very hard. Sometimes N. E. winds blow here the most part of the year. Point Arenas and Point Palmerita make the bay ; they bear from each other about N. by E. and S. by W.

Sailing out of this bay, bound to Carthagena, steer to the W. N. W. to get 2 or 3 leagues off, then steer S. S. W. But if you are bound to the eastward, or to Jamaica, you must work up as far as the river Magdalen or Point Occa, to be sure of fetching near the E. end of Jamaica. The current sets in the offing mostly to the eastward, except in strong N. E. winds.

Latitude 10° 50' N. Longitude 74° 55' W, Variation 6° 22' E.

To anchor bring Point Arenas N. W. and the volcano N. E. or N. E. by E. and Sambay hill E. S. E. to E.

From Cape Blanco to Cape St. Roman, Cata Bay, Porto Cabello, &c.

The land is still very high and mountainous, the westward of Cape Blanco, for about 10 or 12 leagues, when it begins to become lower; the coast all along is bold and clear; you may stand within a mile of the shore, all the way down from La Guayra to Porto Cabello, about 10 or 12 leagues to leeward of Cape Blanco, and about 6 to windward of Porto Cabello, you meet with a very fine bay, or rather harbour, called Cata Bay; there is not less than 10 fathoms in going in, and when you are entered, you may anchor in what water you please, from 5 to 20 fathoms being landlocked from all winds, but from N. N. W. to N. N. E. which winds seldom blow here; you have a regular sea breeze all day, and a fine land breeze all night, with plenty of wood and fresh water. There is a town 4 or 5 miles from this bay, and many planters and other people live in the neighbourhood, who have abundance of cocoa, and money likewise. This bay, which lies from Curassoa S. E. by E. by compass (there is half a point of variation here) is seldom without one or more Dutch vessels trading for cocoa; the land is very high, on both sides the bay, with a fine valley in the middle; there are several other small bays, to the eastward, the best of which is that of Turiano, but it is not so good as Cata bay, either for a ship to lie in, or for trade.

From Cape Blanco to Porto Cabello, the course is W. $\frac{1}{2}$ S. or W. by S distance 17 or 18 leagues; the land is very high till you come about a league to leeward of Cata bay, and then it runs lower down to Porto Cabello: this port is in a large valley, round a low point, 6 leagues to leeward of Cata bay; you may see from this bay the land which runs out from Point Tucaras; it bears W. N. W. from the bay 18 or 19 leagues; from Cape Blanco N. by W. above 36; and from Porto Cabello N. W. by W. distance 12 leagues.

From Point Tucaras to the Point of Coro the coast lies N. by W. about 14 leagues; the land all along is low, and full of islands and keys, but down towards Coro it is higher. Cape St. Roman lies 23 leagues to the N. W. by W. of Point Coro, and may both be descried from Curassoa, in clear weather. On this coast you find very little lee current, till you come without the stream of Point Coro, but at most times you have fine weather, and variable winds.

From Cape Codera to Cape Blanco—Jasper Bay.

IF you come out from Cape Codera, and are bound to the westward, you may stroke the cape as close on board as you please, as it is steep too; there is a small sandy bay on the west side of the cape, and close to it, wherein you may anchor in what depth you find convenient; this bay has nothing remarkable. The anchoring is good, as we have already observed, but no fresh water.

When you come round Cape Codera, if it is daytime, you will see the White rock, which bears from the cape N. by W. distant 6 miles, and from Chuspa bay N. E. by E. 8 or 9 miles. It is about as large as the hull of a first rate, and almost as white as Beach head; you have all clean ground about it, but on the west end there is a small ledge of a quarter of a mile from the rock.

Having rounded Cape Codera you will see a low point to the south-westward, about 7 miles; it is the first you come to; you may run down to it within half a mile of the shore; then a fine sandy bay opens to the westward, into which you may haul round the point, and giving it a birth of a quarter of a mile. This bay is called by the Spaniards Chuspa bay, but the English have

named it Jasper bay ; you may anchor there within less than half a mile of the shore, in 7 fathoms water.

When you have run into 7 fathoms water, you will bring the E. part of the bay, that is the point round which you came, to bear N. E. and in the S. E. corner of the bay you will get fine fresh water, and good wood. There is always a little swell in the bay ; when you will anchor you will perceive a small point about a mile to the westward of you, and close round that point there is a small town ; but the landing here is very bad, on account of the great surf on the beach. The land to the westward trends to the W. by S. and is very high, both inland and near the coast ; very little is to be had here but wood and water.

From Jasper bay to Cape Blanco, the course is W. by S. 13 leagues, and to La Guayra W. by S. 10 leagues. La Guayra is in a small bay, about 3 or 4 leagues to the windward, or to the eastward of Cape Blanco. There is a prodigious high mountain aback of La Guayra, which is almost as high as that of Teneriffe : it is called the mountain of Caraccas. Cape Blanco is low land, so that when you are 4 leagues off you cannot possibly see it on account of that mountain. Being off Cape Blanco, within a league or two of the land, you may see the fort, batteries, and town of La Guayra, which appear of a whitish gray, while the soil about the town looks red. When you are within 4 or 5 miles from Cape Blanco, it looks like a town under the high land, and has a gray and ragged appearance ; the shore is clear and bold all along. Cape Blanco lies in lat. 10° 50' and Cape Codera in lat. 10° 36'.

From the Dispirited Keys to Cape Codera or Quadera.

THE course between the two places is N. W. by W. distant 25 leagues ; it is all a bold shore, so that you may run down along, close within 2 leagues, or less ; and when you come within 2 or 3 leagues of the cape, there is a fine bay, wherein you may anchor, in what water you please, and good ground ; you run so far into that bay, as to bring Cape Codera to bear N. or N. by E. when you have 5 fathoms water, 2 miles from the shore. When at anchor, with the above bearings, and the cape distant 3 leagues, there is a lagoon W. S. W. from you, where you may get good fresh water ; you will see a table land on the main, bring it to bear S. S. W. or S. W. by W. and you may run into that bay in the night by the lead, and anchor in what water you choose ; inland it is very mountainous, but by the water side the land is low. This bay is called Capaya bay ; several planters are settled round it, from which you can procure plenty of cocoa.

The Dispirited Keys on the Spanish Main.

THE sailors have given this name to the small islots, called by the Spaniards Cayos de Ceritu.

From Salt Tortuga to those keys, the course is S. E. by S. or S. S. E. distance 18 leagues ; they are low sandy keys, with some mangroves upon them, but no fresh water, lying about 4 miles from the coast ; you go in round the N. end of them ; within half a mile of the N. end of them there is 6 or 7 fathoms water.

After you are got round the N. W. end of those keys, you may run the inside of them, keeping in 6, 7, or 8 fathoms water, one fourth of a mile from the shore, very good ground, and quite landlocked from all winds. You will have the little islands Boraritas 3 or 4 leagues to the E. N. E. The city of Barcelona bears S. S. E. from them, about 4 or 5 leagues.

The land on the main all along is high, mountainous, and uneven ; the highest land along shore that you can see when at anchor there, bears W. S. W. dis-

tant about 5 or 6 leagues; there is but little to be got at this place, so we will proceed along the coast.

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*Description of the Spanish Main; and the adjacent islands, from
Margarita Island to Cape St. Roman.*

THE ISLAND OF MARGARITA—THE ISLAND OF TORTUGA.

FROM St. Vincent to Margarita the course is S. W. distance 46 leagues, and from Grenada to the same island, the course is S. W. by W. distant 26 leagues.

The island of Margarita is 24 leagues long, and lies E. by N. and W. by S. It is high land all through, except the W. part, on which is a low sandy point, running off shoal to the Pearlbank, which is joined to it. Four or five miles inland from this W. end there is a very high part of land, with the appearance of a sugar loaf on the top of it, which sugar loaf seems as if it was falling down to the northward. Bring that high land to bear E. by N. and if you are bound to Tortuga, steer W. S. W. which course will carry you to that island.

The Tortuga or Salt Tortuga, is a very low island, which cannot be seen above 4 or 5 leagues off; keep on the S. side of it, and anchor about half a mile, or three quarters of a mile to the westward of a low point on the S. E. part of the island; bring the low S. E. point to bear E. N. E. and you will have 18 or 20 fathoms water; and if you moor, your westernmost anchor will lie in about 30 fathoms, good ground; but do not go any nearer in, for the ground is very bad, on account of the merchant ships who load salt here, heaving their ballast out. You are to moor W. N. W. and E. S. E.

During all the fore part of the day the wind is at E. or to the southward of E. and in the afternoon it comes to the N. E. or N. E. by E.

The north side of Margarita lies in the latitude of $11^{\circ} 10'$ and Tortuga lies $10^{\circ} 57'$ bearing from the former W. by S. but in coming down, you must steer W. S. W. on account of a strong current to the N. W.

In approaching the island, be sure to come by the south side of it; for on the north side there are several reefs and shoals, which make it dangerous. The S. E. point of Tortuga lies flat, about half a mile off. Anchor to the westward of this S. E. point, bearing E. N. E. about half a mile and then the south point of the island will bear W. by S. 6 or 7 miles. A little to the eastward of the south point there is a fine lagoon, which has 12 feet water, and more at the entrance; when you are in, you find a great plenty of wilks, conks, craw fish; and some chicken turtle; there are abundance of goats on the island; but they are very wild; a large grove of trees is to be seen on the eastward of the island, but there is very little wood any where else, and only a little mangrove here and there.

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THE ISLAND OF GRENADA.

THE S. W. end of Grenada lies in $11^{\circ} 58'$ lat. N. and about $61^{\circ} 52'$ longitude W. from London. The eastern part, called the Cabesterre, is low land; but a ridge of mountains, which may be seen 14 or 15 leagues off, rises in the middle of the island, and runs N. and S. from one end to the other.

There is good anchoring ground all along the coast of Grenada, and on the east and west sides, several small bays and creeks, commodious for vessels, as well as for the landing and shipping of goods.

The grand bay, in which the port is included, as well as the careening place, lies on the west side, and has the form of an irregular crescent. The true entrance of the port is from W. S. W.; several men of war have anchored and careened here, and all the pilots greatly commend the goodness of the anchoring ground, as well as its situation, which affords good shelter from the prevailing winds.

Just as you enter the port, there runs out a high rocky point, very steep on every side, excepting to the N. E. On this the Fort Royal, which is but small, is constructed in as regular a manner as the nature of the place will admit; but it is overlooked by the several heights which form and surround the harbour.

On the south side of the island, about 7 miles E. of point Salines, lies the harbour of Calvini which is very deep. It is divided into the outward and the inner port; the entrance into the former is above half a mile broad, with as much extent within; the entrance into the inner port is about a quarter of a mile in breadth, and its depth above a mile; it is for the most part 7 fathoms deep and excellent holding ground, being every where a soft oozy bottom. The ships here may lie alongside of the warehouses, and take in their loading with great ease and convenience; after which they can, with very little trouble, be towed into the outer harbour, which enjoys this peculiar advantage, that ships can sail in or out with the common trade wind.

From Brown's point, (the S. W. end of Tobago,) to Point Salines, (the S. W. end of Grenada,) the course is N. W. by W. 29 leagues. The south side of Grenada is bold, giving it a mile or two birth; there being only two or three small rocky islands, and some rocks very near the shore. As you run down towards Point Salines, you will see the Islet Ramier, a very small island, about 1 mile south, from the nearest shore, and $1\frac{1}{2}$ mile S. E. from the point. Give that island a mile birth; you cannot go within it, as there is but little water. To the point Salines it is sufficient to give half a mile birth, there being no less than 7 fathoms. As soon as you are past that point, you open the Grand bay, and may borrow pretty nigh; turn up, and anchor to the northward of the fort, which bears from point Salines N. E. by N. A mile from the fort you will have 15 fathoms, clear ground, but higher it is much shallower, and a little rocky. If you go into the harbour, run close under the fort, and anchor midway, or rather nearest to the fort, then warp up, all clear ground; there are eight fathoms close to the town. It is full the third of a mile broad at the entrance, and very capacious within.

You are obliged to work up into Grand bay, at most times, by reason that it lies open to the westward, and the trade wind blows out of the bay.

THE GRENADINES, OR GRANADILLOS.

THE Grenadines form a chain of innumerable rocks and barren spots, good for little, which extend to N. E. by N. for about 16 or 18 leagues. Some, however, are of considerable size and value, particularly Cariuacou and Bequia, both inhabited, and producing good coffee and cotton.

Cariuacou lies about 6 leagues N. by E. $\frac{1}{2}$ E. from the N. W. of Grenada; it is of a circular form, of about 6 miles in length and breadth, and has a commodious harbour.

Bequia, called also Little Martinico, is the northernmost of the Grenadines, and lies about 2 leagues south from St. Vincents; on the west side it has a very good sandy bay, where you may ride occasionally; and wood is to be got there, with plenty of fish, but no water. The little islands to the southward of Bequia, are very fair, and near them you may stand boldly, having neither rocks nor dangers you need to fear.

N. by E. course from Point Laurent, or the N. W. point of Grenada will carry you clear along the Grenadines.

Observe that, towards the south part, it is rather dangerous to come near in the night.

The Island of St. Vincents.

From Bequia to St. Vincents, the course is north, about two leagues. The channel between those two islands, is very good to come through, if bound from Barbadoes to the Salt Tortuga, or the Spanish Main; and there are small trading vessels which work up through it. St. Vincents is about five leagues long, and lies nearly N. and S. and E. and W. the north end, which is much higher than the south part, is inhabited by about two thousand natives, or Caribs. On this

north end there is a volcano, called La Souffriere, or Sulphur hill, near Point Tarratee. On the west side of the island, which is bold, are several bays, having all of them fresh water rivers, and on the S. W. side you make good anchorage, as near, or as far off, as you please, especially in Kingston bay, where the chief town is situated. But the best bay of the island is Tyrrel's bay, called formerly Bay St. Anthony; when you turn up between St. Vincents and Bequia, you will see a large bluff of land, and just to windward of that is Tyrrel's bay or Calliaqua; the shore is bold on each side; run into 19, 20, or 15 fathoms and anchor; there are two rivers which run into the sea.

St. Vincent is within sight of Barbadoes; the course from Carlisle bay to the south end of St. Vincent, is W. northerly 26 leagues. If you intend to anchor in Kingston bay, you will see a small high peaked island called Young's sugar loaf; pass the bay to leeward of this sugar loaf, and go round a long sloping point; you may borrow within pistol shot; but if the wind takes you short, you may anchor in 35 fathoms, and warp in. There is a small ledge of rocks close on the weather shore, within 6 fathoms.

The Island of St. Lucia.

FROM Point Tarratee, the north end of St. Vincent, to the Pointe du Gros Piton, or the S. W. point of St. Lucia, the course is N. by E. $\frac{1}{2}$ E. $5\frac{1}{2}$ leagues; there is a deep and good channel betwixt the two islands.

St. Lucia, which is about 10 leagues in length, and about 5 in breadth, is a very high and broken land covered with forests. Some of the mountains rise like pinnacles, to an astonishing height, and are very steep; others have broader bases, and are covered with woods, to the summit, which terminates in the craters of the volcanos. These volcanos indeed are all exhausted, except one, which the French call La Souffriere, (The sulphur hill,) on the S. W. end of the island. The crater lies on an eminence, between two mountains.

About $1\frac{1}{2}$ mile to the west of the volcano, on the seashore, stand two high peaks, called by the French, Les Pitons, and by the English, the Sugar loaves; they lie very nigh each other, but between them is opening enough to distinguish them both, when you come from the southward.

On the west side of St. Lucia, less than 3 leagues from the Gros islet, is the Carenage, one of the best harbours in the West Indies, with deep water, and exceeding good ground all over. Three careening places have been formed there by nature, which want no wharves, and require nothing but a capstern to turn the keel above water. Thirty line of battle ships would lie there, secure against the hurricanes, without the trouble of being moored.—Add to this that no ships can enter without warping in; there is always a breeze to carry one out, and in less than an hour, the largest squadron may be in the offing. The shores here are so bold, that a first rate man of war may come within 6 yards of them.

A league to the southward of the Carenage, lies the Grand Cul de Sac, and two leagues to the northward, the Bay of Gros Islet, both excellent roads for large vessels.

The course along St. Lucia, from the point Du Gros Piton to the Gros islet, is N. N. E. 9 leagues.

When bound from the northward to the Carenage, you will see a bluff two leagues to leeward, which you may make bold with; you must haul close in to see the harbour, run into the mouth of it as far as you can fetch, and warp in; when the sun shines you will see all the dangers.

If at any time you should have occasion to anchor at the south of St. Lucia, there is a fine deep bay, called Man-of-War bay, (*Ance de Vieux fort*, by the French) under the S. E. bluff; you may turn in till you bring the south point to bear S. S. W. and anchor in 7, 8, or 10 fathoms, good ground. There is a river in the north part of the bay running into the sea; if you water there you must go up half a mile in your boat, except after great rains, when you may fill at the mouth of the river.

The Island of Martinico.

FROM the north end of St Lucia, called the Cape, to Point Salines, or the south end of Martinico, the course is N. easterly, about 6 leagues. This is the narrowest part of the channel that divides the two islands.

From Gros-islet bay to Diamond rock, the course is N. by W. about seven leagues.

Martinico is about 12 or 13 leagues in length, and lies N. W. by N. and S. E. by S. : its breadth is extremely unequal, and scarcely any where more than 4 or 5 leagues; and if you include the promontories, which project in many places one or two leagues beyond the rest of the island, its circumference will include above 30 leagues. The land is very uneven, and every where intersected with large hummocks, in the form of sugar loaves. Three mountains rise above those innumerable hummocks, the highest of which has been a volcano; it appears like the crown of a hat, and may be plainly seen on any side of the island you come.

Fort Royal, on the south side, and at the bottom of a deep bay, called the Cul de Sac Royal, is the chief town of Martinico. It is very advantageously situated, near an excellent harbour, and under cover of a peninsula, which is entirely occupied by a fort, formerly the residence of the Governor-general of the French Windward Islands. That part of the Cul de Sac is called the Carenage. The town is situated to the N. N. W. and N. W. of the fort.

The harbour and the road are incumbered with several keys, or shoals, composed of hard gravel, limestones and coral; those keys, from their number, as well as from their situation, are very dangerous to strangers; but they may be considered as the safety of the road and harbour, since no large ship would attempt to sail among them without a thorough knowledge of the channel. The watering place is at River Monsieur, to the east of the fort.

Point Salines, or the south end of Martinico, is low land, and has three small rocks, or islands. When they bear W. from you, you may see between them and the point; within this point, to the westward, the English ship Reasonable was lost, off Fort and point Garden; it must therefore be avoided.

The Diamond Rock, and the southernmost little island, (called Kid island) at Point Salines, lie from each other W. 19° N. and E. 19° S. about 10 miles. This rock stands about a mile from the shore. There is no going within the rock, but on the S. side it is bold. From Diamond Rock to the entrance of the Cul de Sac, or Fort-Royal bay, the course is N. N. W. distance 4 or 5 leagues. There are three small coves between, the southernmost of which is called Little Diamond cove, and the two others Les Ances d'Arlet. The N. side of the bay is bold, and so is the south side, till you get above Pigeon island, (*Islet a Ramiers*) which is a small green island on the south side of the bay, bearing from the fort about S. by E. In working into this bay, observe to keep your lead going; when standing to the southward, if you weather Pigeon island, you may anchor in what water you please.

There is a ground about the middle of the bay, the lower end of which lies a mile and a half below the fort; it runs a long way up the bay, above the fort; the least water on it is 3 fathoms, but there is from 10 to 20 fathoms on each side of it. Below that ground you may stand bold over from side to side.

If you are bound from Barbadoes to Martinico, the course is N. W. by N. allowing for a lee current, or N. W. about 28 leagues, will bring you from the N. end of Barbadoes to Point Salines; then you may shape your course along shore for the Diamond; there is no danger if bound for Fort Royal. When past the Diamond 3 leagues, you will see a large bay open; haul up, and the fort will be in view. Turn up towards the fort, till you bring it N. or N. by E. then you will anchor in 8 fathoms, two miles distance. If desirous to go farther in, you will get off the bank, and come into 14 or 17 fathoms; that is the deepest and best ground. In upon the bank, the ground is corally but no rocks. If you anchor in the bay against the town, bring the church to bear N. and steer right in, by reason of a bank off the fort, not above 6 feet water thereon. You may make

bold with a low point to the westward, called Point Negro, and all the shore on that side, but the foregoing. If bound to Pigeon's island bay, go round the N. E. point, and you will see open between the island and the main, a small channel for sloops, when very well acquainted; but go round the island, and borrow as near as you please and turn in. The south shore is steep too; bring the westernmost part of the island to bear N. W. by W. or N. N. W. and you will anchor in 7, 8 or 9 fathoms: the bay is clear ground, but do not anchor too near to the eastern shore, by reason of a bank that breaks, when a great swell.

In April, 1772, the variation of the needle was found at Fort Royal, by repeated observations to be $3^{\circ} 52'$ east. Tides have been observed in the Cul de Sac Royal, as well as in other parts of the island; at the equinox, they rise about 16 inches, and at other times between 8 and 12 inches, French measure.

Fort St. Pierre, (St Peter,) the trading town of Martinico, lies about 4 leagues to the N. W. of Fort Royal, in $14^{\circ} 44'$ N. latitude. It is built partly upon the rising grounds, at the foot of a ridge of hills and partly along the shore of a spacious, circular bay, which forms an open road to the southward and westward. The best anchoring place, called the Frigate's anchorage, lies in the southernmost part of the road, (where you see some steep cliffs and rocks,) in 7 fathoms, gravelly ground. If you bring the highest steeple of the town N. by E. somewhat northerly, and Point Carbet (on the south side of the road) south, you will have 7 fathoms, oozy ground.

If you intend to stay some time in this road, it is proper you should lie with one anchor close to the shore, to the S. E. or E. S. E. (or even on shore) and the other to the N. W.

In the hurricane months, that is, from the 15th July to the 15th October, ships cannot lie with safety in this road, and ought to leave it on the 15th July at farthest. If they are to remain for a longer time at Martinico, they must retire into Fort Royal bay, where they lie secure against the hurricanes; they may also find shelter in Trinity bay, to the windward, and on the north side of the island. The whole circumference of Martinico, as we have observed already, is indented by large bays, at the bottom of which are fine sandy coves, and very good harbours, sheltered by long points, projecting into the sea, but all these are not safe in the winter season.

When you come from the eastward, if you intend to sail by the north side of Martinico, you are to take your departure from the Carvel, a small rocky island that lies 2 miles north of the easternmost point of the island, in $14^{\circ} 51'$ north latitude; in running along which you will be exposed to sudden flurries, which are very frequent on account of the narrow openings of the mountains, and if the top-gallant sails are up, you must keep a lookout after the halyards.

Point Macouba, the northernmost of the island, is in $14^{\circ} 56'$ north latitude, is remarkable for a waterfall of the same name; it is a kind of torrent falling into the sea from the top of a high rocky coast.

About 5 miles further W. by S. you will see a round rock, detached from the land, called the Pearl, and to the southward of it are the little islands of the Precheur. Soon after Point Precheur presents itself, which ends in a flat hummock, with a plantation upon it; the town is more to the S. E. Beyond that point you discover two others in one line; the first, called Morne au Bœufs, (Oxen point,) terminates on the south side, the road of Fort St. Pierre, including the coast of Carbet; the second is Diamond point, already mentioned, to the S. E. of Fort Royal.

Having doubled Point Precheur, you descry the ships, which lie at anchor in the road of Fort St. Pierre; as they have every one of them awnings, on account of the intense heat of the sun, you would take them at first sight, for so many white houses whose roofs are built like a terrass; you cannot come to anchor close hauled; the winds which prevail always from the E. and E. N. E. oblige you to make several trips to come to it.

A TABLE,

OF THE LATITUDES AND LONGITUDES OF THE PRINCIPAL PLACES AND HEADLANDS OF MARTINICO.

NAMES OF PLACES.	<i>N. lat.</i>	<i>W. long. fr. London.</i>
Cape Ferre the easternmost of the island	14° 27—	60° 48' —
The southernmost island of Point Salines (Islet a Cabrit)	14 23—	60 52 —
Diamond Rock	14 24—	61 06 —
Cape Solomon, or Grosse Point, beyond Pigeon island	14 30 45	61 07 —
Fort Royal (observed on shore)	14 35 55	61 09 —
Morne au Bœufs	14 41 55	61 10 36
Fort St. Pierre (observed on shore)	14 44—	61 10 41
Point Macouba, the northernmost of the island	14 56—	
Cul de sac Robert, on the north side	14 42—	60 50 —

BEARINGS OF SUNDRY ROCKS, POINTS, &c. AT MARTINICO.

Diamond Rock, and the southernmost island off Point Salines,	}	W. 19° N. and E. 19° S.	} True North.
Diamond Point, and the point of Les Ances d'Alert	}	S. E. 3° E. and N. W. 3° W.	
Cape Solomon and Point Precheur, the westernmost of the island	}	S. 35° E. & N. 35° W.	
The Pearl Rock and Point Potiche	}	W. 31° S. and E. 31° N.	
Point Precheur, and the called Cachacrou, or Scot's head	}	S. 18° E. and N. 18° W.	

In coming out of Great Diamond cove, and having opened the north shore of Martinico, the westernmost part of Dominico just appears in sight, and bears by compass N. N. W.

The Island of Dominico.

FROM Pearl Rock near the N. W. end of Martinico, to Point Cachacrou, or Scot's head, in Dominico, the course is about N. N. W. 8 leagues. This island is about 8 leagues in length, and lies near N. N. W. and S. S. E. It is extremely mountainous, and appears rugged and broken. It bears in great plenty all the woods which are common in the West Indies, and produces abundance of what they call ground provisions. There are properly speaking, no harbours in Dominico; but there is good and safe anchorage along the west side, which is all bold: though ships lie exposed to strong westerly winds, as indeed in almost all the roads of the Carribee islands: but those winds prevail only in the winter months. The road of the town of Roseau is better than that of St. Pierre, in Martinico, the soundings being more gradual, and you can anchor from 15 to 25 fathoms, good holding ground all over.

About 4 miles from the north end, lies a most noble bay, called Prince Rupert's, which, besides its safety, its magnitude, the depth of the water, and the goodness of the anchorage, has the advantage of three fresh rivulets running into it.

On the north side is the high remarkable bluffs, called Prince Rupert's head, by which the bay is easily known. The south point (Rollo's head) is pretty low, but both points are bold too, so that in working in you may stand boldly over from side to side, which is near 3 miles over; the bay is about 1½ mile deep; you may anchor in what water you please, and moor W. N. W. and E. S. E.; the best anchoring is rather on the north side. There are three rivers running into the bay, where you may water, but the middle and north rivers are to be preferred. The best wooding place is on the north part of the bay.

If you are bound to Dominico from Barbadoes, you must steer N. N. W. till you pass Martinico; then a N. W. course will carry you to the northward of Dominico. Leaving Marygalante on the starboard side, haul up close in with the north point of Dominico; you will see a round bluff, making like an island, if at some distance; go round that, and open Prince Rupert's bay; turn into the north part, and anchor in 7, 8, or 9 fathoms. You will see the mouth of a large river, anchor to the northward of that, half a mile, and you will be opposite to a small river, which you water at, the best in the bay; the great river is

brackish. There is another river to the southward, where you may anchor in 6 fathoms, clear ground ; but in 10 fathoms you will have coral rocks.

The town of Roseau lies in $15^{\circ} 18'$ north latitude, and $61^{\circ} 22'$ west longitude from London.

The island of Guadaloupe, and its Dependencies—viz.—The adjacent islands called The Saints, Marygalante, Deseada, or Desirade, and Petite Terre.

THE island of Guadaloupe, one of the largest of the Carribees, is near 60 leagues in circumference ; its form is very irregular ; it is cut in two by an arm of the sea, called the Salt river, diminishing in width from 50 to 15 fathoms, whose soundings are in some places deep enough for a ship of 500 tons, whilst in others they have scarce water enough for a bark of 50. The length of this straight is about 2 leagues.

That part of the island on the west of Salt river, which gives its name to the whole colony, is divided into two by a ridge of very high mountains running north and south. Towards the south point rises in the middle region of the air, a mountain, called La Souffriere, (Sulphur hill,) like the volcano of St. Lucia, that exhales a thick and black smoke, mixed with sparks, which are visible in the night.

The chief place of Guadaloupe is the town of Basseterre, on the west side, near the south end of the island, in lat. $15^{\circ} 59' 30''$ and long. west from London $61^{\circ} 43'$. The course from Prince Rupert's bay, in Dominico, to the road of Basseterre, is N. W. by N. 10 leagues.

The English ship the Temple, being at anchor in Basseterre road, the westernmost part of the Saints, and some part of the west side of Dominico were in one, bearing S. E. by S. by compass. Then Montserrat bore N. W. northerly, and the westernmost part of Basseterre bay N. W. by N. distance one mile.

The French frigate La Flora, being moored N. N. E. and S. S. W. in this road, in 7 fathoms, sandy ground, and the small anchor in 37 fathoms, same ground, had the following bearings by compass :

Old Point Fort to the S. E. 2° S. in one with the Westernmost Saint.	
The Fort to the S, W. of the town	S. E. by E.
The Church	N. N. E.
The N. W. end of the town	N. by W.
Point Irois	N. N. W.
The southernmost point of Dominico	S. E. by S.

THE SAINTS are 5 or 6 small islands, the two larger of which are known by the names of Terre d'en haut (or the upper land) which is the easternmost, and Terre d'en bas (Lower land) which is the westernmost. According to a very exact bearing, the S. W. point of the westernmost Saint lies S. $27^{\circ} 30'$ E. of the S. point of Guadaloupe, distance 8 miles ; the least depth between them and the main island is 17 fathoms. But the best channel is on the south side, for in the former there is a sunken rock, which lies $1\frac{1}{2}$ mile from the Saints. These islands are so happily arranged, that in the midst of them there is as fine a road for shipping as any in the neighbourhood. The Saints are all bold too, though they appear to be a parcel of rocky islands.

THE Island of Marygalante, about 8 miles to the eastward of the Saints with a good channel between, is about the height of Barbadoes, and rises gradually towards the north. At the south end, and the east side, are dangerous rocks under water, and reefs which stretch about one league into the sea ; but the west side is a good fair white shore, with good anchorage in several places.

From the north end of Marygalante to Deseada, the course is N. N. E. about 8 leagues, and the channel good, keeping the middle ; but there is a very small sandy island, called Petite-Terre, which lies right in the fair way ; it is about 3 miles long from N. W. to S. E. and is divided in two by a channel, where small

vessels may anchor. It is not safe to come within more than 2 miles of Petite-Terre. It lies E. S. E. from the east end of Grand-Terre (Point Chateau) which is remarkable by a parcel of gray rocks, distance about 5 or 6 miles. There is no passage between Petite-Terre and the main island for any thing but small craft. There is pretty good anchoring by Petite-Terre, to the westward, 2 miles from shore, in 7 fathoms water; then the west end of Deseada will bear N. 27° E. and Point Chateau N. 80° W.

DESEADA, or the Desirade, one of the smallest of the Carribees, lies 5 miles to the N. E. of Point Chateau. It is a kind of rock without water, where they cultivate some cotton. This island lies E. N. E. and W. S. W. having no trees upon it, and is shaped like a galley, its E. N. E. end making like the head or prow, and the S. W. end like the tilt of the galley; but coming near, and passing by the north end of it, you will perceive white broken patches, like heaps of sand, with red streaks in them. On the north side there are some rocks under water. There is anchorage at the S. W. part of Deseada, distance $1\frac{1}{2}$ mile from some houses that stand by the shore side. You may anchor in from 5 to 7 fathoms water, taking care to look out for a clear spot, to let your anchor go in, for the ground is rocky; and when at anchor, Petite-Terre will bear south-easterly, distance 7 miles, and Point Chateau south-west distance 4 or 5 miles. Point Chateau, the easternmost part of Grand-Terre, is known by a hummock upon it, and between it and Deseada there are 22 or 23 fathoms water.

There are gradual soundings between Marygalante, Grand-Terre, and Guadaloupe, as far as Point Peter, (Point a Petre, near which stands the fort of Grand-Terre) but if you are to the eastward of Deseada, and bound for Point Saline in Martinico, the best way is to keep up S. or S. by E. as there is most commonly a current that sets down between the island. From Deseada the distance is about 41 or 42 leagues. From the N. W. end of Barbadoes the course is N. N. W. distance 64 leagues to Deseada.

Bearings and Distances about Guadaloupe, Marygalante, the Saints, &c.

From the N. W. end of Barbadoes to the E. end of Marygalante the course is N. 31° 34' W. distance 58 leagues, and when Marygalante bears between N. W. by W. and N. W. $\frac{1}{2}$ N. the distance is 5 or 6 leagues.

The east end of Marygalante, Petite-Terre, and Deseada, bears when in one, N. N. E. and S. S. W.; the distance between the east end of Marygalante, and Deseada is 7 or 8 leagues, and Petite-Terre is midway between both; when Petite-Terre bears between S. W. by W. and W. S. W. then the north part of Dominico bears S. W. by S.

Marygalante is in length about 3 leagues; the west part of it, and the S. side of the Saints bears by compass W. $\frac{1}{4}$ S. distance 4 or 5 leagues, but the north side of Marygalante and the south side of the Saints, bear W. S. W. $\frac{1}{2}$ W. and E. N. E. $\frac{1}{2}$ E. When the west part of the Saints, and the S. E. point of the Grand-Terre, or Point a Saint, are in one, they bear N. N. E. easterly. When the northernmost part of the Saints, and the southernmost part of Marygalante come in one they bear E. When Point Royal (the south point of Guadaloupe) and the south side of Marygalante come in one they bear E. by S.

The big rock of the Saints, and the north side of the westernmost Saint lie E. 21° S. and W. 21° N.

A peak on the north part of St. Lucia, and the west point of Martinico, lie S. 17° E. and N. 17° W.

The north point of Dominico, and the end of the easternmost Saint, lie E. 41° S. and W. 41° N.

The south point of Guadaloupe, and the easternmost land of the Saint lie N. 41° W. and S. 41° E.

The south point of Guadaloupe, and the southernmost point in view of Dominico, lie N. 26° W. and S. 26° E.

Bearings about Deseada, Petite-Terre, and Marygalante.

From the hummock of Point Chateau, the westernmost point of Petite-Terre, (called Sandy Point,) lies S. E. by S. 1° E. distance near $5\frac{1}{2}$ miles.

The latitude of Sandy Point is $16^{\circ} 16'$ or $17'$, and its longitude from London $60^{\circ} 55'$.

The Hummock called Cuve a Pierre-graize, on the north part of Marygalante, lies from Point Chateau S. by E. $5^{\circ} 45'$ E. distance near $6\frac{1}{2}$ leagues. Its latitude is $16^{\circ} 2' N.$

The Cove, called Anse du Galet which is the southernmost of Deseada, lies N. E. $4^{\circ} 30'$ E. from Point Chateau, distance near $4\frac{1}{2}$ miles. Its latitude is $16^{\circ} 24'$ or $25' N.$ and its longitude from London, $60^{\circ} 54' W.$

From Basseterre road, in Guadaloupe, should you want to go to Antigua, the best way is to weigh at night, and sail at a proper distance from the shore, in order to keep the land winds, and they may carry you to the northern part of the island by morning, where you will come into the sea winds, to carry you across. If you should do otherwise, you might be caught by the baffling winds from under the high lands, which are here.

Off the N. W. part of Guadaloupe, there is a small island about a mile from the shore but there is no going within it. Two miles to the eastward of this island lies a small rock, $2\frac{1}{2}$ miles from shore, which looks gray, and is very high; that rock, is called the Englishman's head.

The course, in turning along the island to the Englishman's head, is N. W. North, and N. N. E. about 10 leagues, and from the Englishman's head to Johnson's point, in Antigua, the course is N. by W. 9 leagues.

From the north point of Grande-Terre, called Antigua point, to English harbour, the course is N. W. by N. $\frac{1}{2}$ W. 7 leagues.

THE ISLAND OF ANTIGUA, WITH BARBUDA.

This island is of a circular form, and about 22 leagues round, having a rocky shore, and being surrounded with many dangerous reefs. It has excellent harbours particularly English harbour, on the south side, which is capable of receiving the largest ships. English harbour is at a small distance off the town and harbour of Falmouth. There are besides Willoughby bay, to the windward of English harbour; Nonsuch harbour on the east point, and the town and harbour of Parham on the north side, without speaking of a great number of creeks, and smaller bays. But the principal trade is carried on at the harbour of St. John on the west side, where the capital stands and which has water sufficiently deep for merchant vessels.

The latitude of St. John, (south point,) is $18^{\circ} 3'$, and the longitude from London about $64^{\circ} 49' W.$

Instructions for sailing into St. John's harbour, coming from the Southward.

AS you come nigh the Antigua shore, you must give the west part of the island a good birth till you open Sandy Island; bring it north or N. by W. and keep your lead going: you may keep by it in 11 or 12 fathoms water, and continue so if you want to go between Sandy island and the main, or until you open the houses upon the little rising hill within Pelican point. This is the leading mark or the main side. As for Sandy island, it is pretty bold too, and the shoalings may be seen in the day time. The ship's stern, is also bold too. In working into the road, you may stand so far to the northward, as to bring ship's stern, S. S. E. then about. By these directions you may work into St. John's road, between the Wallington rock and Ship's stern. The rock shows itself by the water breaking upon it.

If you sail from the southward to St. John's road, within Sandy island, bring the westernmost of the Five Islands N. by E. $\frac{1}{2}$ E. of you, when you are off John's point, and keep those islands open on the starboard bow; that will carry you clear of a sunken rock and sand, off Fry's or Bermudian valley. Keep a

mile distance from the westernmost of the Five islands, and you are in the channel, or keep Sandy island on your starboard bow till you open the Hawk's bill, and then luff.

To avoid the Nine feet bank, the south end of which lies about W. by N. from Sideserfe's mill, which bank is about two miles from the shore, and one mile in length, but very narrow; keep Will Knight's house open with Ship's stern, and in not less than 5 fathoms, for at 4 fathoms, you are immediately on it.

The vanes of Sideserfe's mill shutting in with the high land to the northward of the mill, then you are just on the south end of this bank.

If you are obliged to turn between Sandy island and the Nine feet bank, you may stand close to Sandy island; but put about when in 5 or 6 fathoms, off the bank.

From Ship's stern to the Wallington, - - - - - N. $1\frac{1}{2}$ mile.
From the Wallington to the Diamond, - - - - - N. 3 do.

If coming from English harbour you are bound to St. John's harbour, observe that from the former to the eastward, the shore lies E. by N. and W. by S. Down abreast of Johnson's point, and two leagues to the eastward of it, is foul ground about two miles off shore. Give the island a birth of at least 3 or 4 miles, and when you come down as low as Johnson's point, haul towards the N. N. W. and keep your lead going; then steer for Sandy island, which will bear N. or N. by W. of you, and if the wind will allow you, you may run within Sandy island, where you will not have less than 7 fathoms: however, it is better for a stranger to go to leeward of Sandy island. Be sure you do not stand above 3 or 4 miles to the northward of the island, on account of the lee current, that comes down to the north side of it, as well as of several shoals which lie to the N. E. of the same. But when you can fetch Ship's stern, you may stand boldly towards it, and anchor in what water you please, from 6 to 12 fathoms water. If you keep in 15 fathoms, that will run you without Sandy island, that is to the westward of it, in case night should come on. There is a bad shoal which lies N. N. E. and N. E. by N. from ship's stern, distance about $1\frac{1}{2}$ mile; when it blows, you may see the breakers on it; it is called the Wallington. The channel is on the south side of it, up to St. John's harbour.

If, in the day time, you are running down the south side of Antigua, you may haul in for Johnson's point till you bring the India creek land to be seen a good sail's breadth open with Old road bluff; run down with that mark on, till you bring the largest of the Five islands to bear N. E. $\frac{1}{2}$ E. then steer northward; that course will carry you clear of the Ten feet bank, which lies off the south side of the Five islands; likewise of the nine feet bank that lies off the north point of the Five island's harbour; and when you bring the Hawk's bill to bear east, you may haul up as nigh Ship's stern as you please, within Sandy island.

To anchor in St. John's road, bring the Ship's stern S. W. by W. and St. James' fort E. S. E. and the Wallington N. by W. and you have 7 fathoms water, good ground.

In 1772, the French Frigate La Flore being moored in this road, in 9 fathoms, fine sand, had the following bearings by compass.

Sandy island	- - - - -	W. by S.	3° 15' W.
The Ship's stern	- - - - -	S. W.	1 30 W.
The Flag-staff of the Fort	- - - - -	S. E.	2 00 S.
The Point (probably Corbizan's point)	- - - - -	N. E.	1 00 N.
The Great Sister	- - - - -	N. E. by N.	1 15 E.
Willington, or Wallington Rock	- - - - -	N. by E.	0 30 N.
The North end of Montserrat	- - - - -	S. W.	3 00 S.
Redondo	- - - - -	S. W. by W.	1 45 W.

St. John's is a bar harbour, there being a sand which stretches off from the N. of the harbour S. W. home to the land on the south side. The deepest water is on the southernmost part of the bar, where you have 14 feet; on the north is but 12. In coming in, you must keep along the S. shore, as there is nothing to

hurt you from Ship's stern, all along into the harbour; you may come so near Ship's stern as to cast a stone ashore, having $11\frac{1}{2}$ fathoms close by it.

From the N. W. part of Guadaloupe, or Englishman's head, to English harbour, the course is N. distance 9 leagues. This is a very safe and fine harbour; it lies close under the W. end of the easternmost highland, but a little to the westward of that the land is much higher. It is sheltered from all winds, and ships commonly lie there in the hurricane months. You may anchor in the bay, without the harbour, in 5, 6, or 7 fathoms water, and warp in; for unless you can lie N. N. E. you cannot lie in it; besides the wind is apt to flutter you. Give the low point on the starboard point a good birth, and keep mid-channel, if you can. The most water is $4\frac{1}{2}$ fathoms, and the same in Freeman's bay; but there is at most times smooth water. However, it is not safe for a stranger to carry a ship in, on account of the bar, and the narrowness of the entrance. When you come off the harbour, the master-attendant, or a pilot, comes on board.

Large ships lie at proper moorings, but small ones lie with one anchor to the E. S. E. the other made fast astern on shore. There are four moorings for ships in Freeman's bay, just within the harbour's mouth; the best bower to the westward, and the moorings on the shore to the eastward.

No wood or water there. You can get your water at Falmouth, about $1\frac{1}{2}$ mile to the leeward; and is not very good, being very soft, muddy, and brackish.—No tide.—Variation $4^{\circ} 50' E.$

To sail into FALMOUTH HARBOUR, you must run in close to the west point, called Proctor's point. There is a ledge of rocks which covers the middle of the inlet; from thence it is shoal to the eastern, or Governor's black point. About 3 miles W. by S. lies CARLISLE BAY, or Old Road, where you can get the same water as at Falmouth harbour.

Three miles to the N. E. of English harbour lies WILLOUGHBY BAY; the going into this bay is on the west side; for on the east side stretches off a reef within half a mile of Sandy island, and in the middle of the channel lies a Spit, with only 9 feet water upon it; between Sandy island and the Spit there are four fathoms; between the Spit and the west end of the reef there are 7 fathoms, and the channel wider. It is better however, to sail in close on board Sandy island, and anchor in four fathoms.

NONSUCH HARBOUR lies 3 or 4 miles further up, at the east end of Antigua. On the south side is Green island; the best going in is between this island and the south part of the harbour, where you have 5 fathoms water, for the northward of this island it is all rocky; this harbour must not be attempted by a stranger.

SAILING DIRECTIONS FOR THE NORTH SIDE OF ANTIGUA.

WHEN you make the land, give it a birth till you come a quarter down; then haul in till you come into 14 fathoms, and then you may run with safety keeping that draught of water. If the water should shallow, haul off, but if deepen haul in, till you bring in Ship's stern to bear S. $\frac{1}{2}$ E. Then haul up for the fort. There lies a bank off Great bird island, bearing N. N. E. $1\frac{1}{2}$ mile; while ground may be seen $1\frac{1}{2}$ mile before you come to it. The best water on it is 3 fathoms. West-northerly from that 3 miles, and about the same distance north from Barnicle fort point, lies Addison's shoal, where there are no more than 4 feet water, and 3 fathoms round it—N. by W. westerly, distance not a mile, there lie two other shoals, having 3 fathoms water at least. West from thence, distance a good half mile, lies the Horse shoe, sometimes above water, and bearing north from Prickle pear or Beggar's point, distance $1\frac{1}{4}$ mile. A little to the westward of the point, there is a wind mill, and about one third of a mile further to the S. W. there lies another, which are very good marks to come inside of the reef; steering between the two mills, it will make the course S. by W. the least water in coming in is 5 fathoms, and the inner part of the channel 9 fathoms. There lies a small shoal with 5 feet on it, distance from the

Horse shoe, S. W. by W. not quite $1\frac{1}{2}$ mile, and about the same distance N. W. by W. from Prickle pear. There runs another small shoal from Prickle pear, about half a mile westerly, but it is to be seen. West from the last-mentioned shoal the head of the reef begins, which bears from Boon's or Peyerson's point north about 1 mile, and near the same distance from the small shoal. Bring Boon's point to bear S. by W. westerly, and you may steer in, then making that course good to come within the reef. The westernmost part of the reef bears north from the Sisters, above $1\frac{1}{2}$ mile.

There are so many shoals and spots without the reef, that it is dangerous to come too nigh; one in particular, which is called the Diamond, lies a mile to the west of the reef, and in the channel between you have 6 and $5\frac{1}{2}$ fathoms, which channel you are in whilst you keep the west side of the leewardmost Sister in a line with the Fort's flag staff. The Diamond is of a round form, being one mile in length and as much in breadth; the depth upon it from 1 foot to 9. To avoid it you must bring Ship's stern to bear S. by E. before you haul up with the fort, and then look out for Wallington rock; if the wind will serve, you may go close to the westward of the westernmost Sister, and then you will weather Wallington rock, which bears north from Ship's stern above 1 mile; the westernmost part shoals from the breakers a full cable's length, but to the eastward it is bold too.

On the north side of Antigua, and to the south of Barnicle fort point, lies Parham harbour, a place for small ships, but very difficult for a stranger to sail in.

Barbuda is a low flat island, about 3 or 4 leagues long, to the north of Antigua; off its S. W. and N. W. points, there are spits of sand, which extend a long way into the sea; and on the west side lies a good road, where you may ride in 9, 12, or 14 fathoms water.

The course from Ship's stern to the south side of Barbuda is N. by E. $\frac{3}{4}$ E. about 11 leagues.

The Islands of Monserrat, Redondo, Nevis, and St. Christopher.

FROM St. John's road, in Antigua, to the N. W. end of Monserrat, the course is S. W. by W. $\frac{1}{2}$ W. near 7 leagues.

From St. John's road to the south end of Nevis, W. by N. $\frac{1}{2}$ N. near 12 leagues.

From the west point of Monserrat to the south end of Nevis, N. W. by N. $\frac{1}{2}$ N. $10\frac{1}{2}$ leagues.

From the south point of Nevis to Horse-shoe point, (the southernmost of St. Christopher's,) N. W. by W. $2\frac{2}{3}$ leagues.

MONSERRAT, or Montserrat, or Montsarrat, so called by the Spaniards, from the resemblance it bears to the mountain of that name, near Barcelona, is a little island, about 9 miles in length, and 7 or 8 in breadth, being nearly of a circular form; its northernmost point lies in $16^{\circ} 50'$ N. lat. The east side of Monserrat is very high land, and not cultivated; the west side declines gently towards the sea, and is covered with fruitful plantations; towards the middle of the west side is the town, with the road where large ships can anchor: but the shipping and landing of goods is attended with many difficulties; as well as in the two other roads of the island, which has no harbour.

To the N. W. by N. of Monserrat, distance about 2 leagues, lies Redondo; which is nothing but a high barren rock, without inhabitants; it appears like a hay-cock, and has its name from its round form; it can be seen at 9 or 10 leagues distance.

Nevis is a very small island, little more than 5 miles long, and 4 in breadth; it lies N. N. E. and S. S. W. to the E. S. E. of St. Christopher's, from which it is separated by a channel called the Narrows, about 2 miles broad. The island is easily known, being low on both sides, and very high in the middle. The top of this middle high land, which makes like a saddle, when you come athwart of it S. and N. reaches far above the clouds, the sugar plantations lying on the sides of it, near the bottom. On the west part are two fresh-water brooks; they

have three tolerable roads or bays, on the principal of which, near S. W. point is Charlestown the chief place of the island.

In sailing through the Narrows, the first land that comes in view is the top of St. Martin's making like three small hills joined together, the middlemost and highest bearing S. W. by W. When the middle of St. Bartholomew bears W. distance 4 or 5 leagues, the west end of St. Christopher's bears S. W. by S.—St. Eustatia, S. W. $\frac{1}{2}$ W.—Nevis S. In lat. $17^{\circ} 29'$ N. St. Bartholomew bears N. N. W. $\frac{1}{2}$ W.—Saba, W. by N. $\frac{1}{2}$ N.—St. Eustatia, W.—St. Christopher's (west end,) W. by S. southerly. The going through the Narrows, S. by W. and Nevis' (N. E. point.) S. easterly. When Saba is in one with the middle of St. Eustatia, and both on the northernmost part of St. Christopher's and at the same time, Rodondo, in one with the northernmost part of Nevis, then all will bear N. E. and S. W. and before you come to the Narrows, you will see a high rock (called Booby island) about midway the channel, between Nevis and St. Christopher's; keep it on the larboard side or rather keep nigher St. Kitt's shore. But you must keep Nevis' south point open of the aforesaid rock to the westward, to avoid a reef of rocks that lie without the great one. This rock and the northernmost part of Nevis, when in one, bear S. E. by S. easterly; and Nevis' south point will then bear S. $\frac{1}{2}$ E. But to the southward of the aforesaid rock, about 1 mile, are two lesser rocks above water; (called the cows;) these you must also keep on the larboard side, and rather be nearer St. Kitt's side; there you will have $4\frac{1}{2}$, 5, and 6 fathoms, with good ground to anchor, in case of necessity.

The island of St. Christopher, vulgarly called St. Kitt's is 13 or 14 leagues in circuit, the length about 5, and the breadth a league and a half, except towards the south where it is narrowed by an isthmus, which joins it with a headland, about a league long, and half a league broad. The centre of the island is taken up by a great number of high and barren mountains, intersected by rocky precipices, almost impassable, and in many of which issue hot springs. Mount Misery, which is an exhausted volcano, whose head is hid in the clouds, is the highest of all those mountains, its perpendicular height being 3711 feet. At a certain distance, it bears some resemblance to a man who carries another on his back, and this appearance true or false, engaged Columbus to give the island the name of St. Christopher, in memory of the legendary tale, which ^{not} supposes this saint to have carried the child Jesus on his shoulders over an arm of the sea. The assemblage of those hills make St. Kitts, appear to those who approach by sea, like one huge mountain covered with wood, but they find, as they come nearer, that the coast grows easier, as well as the ascent of the mountains, which rising one above another are cultivated as high as possible. The S. E. part, when you sail along at 2 leagues distance, appears like a heap of detached islands, occasioned by there being low lands between the mountains. The N. W. part is the highest, but declines gradually to the sea.

There are two towns of some note in this island, the principal of which is Basseterre, towards the east end; the other called Sandy point, near the west end. There is no such thing as a harbour, or any thing that has the smallest appearance of it in this island: on the contrary, at the few landing places which are made use of, there is a continual surf beating on the shore, which is sandy, and prevents any quay or wharf being erected upon it, and also makes landing always inconvenient, sometimes dangerous.

In running from Nevis to Basseterre, you will cross a bank, on the shoalest part of which there are 5 fathoms, or $\frac{1}{4}$ less 5. It is not quite a mile over and its middle lies S. by W. westerly from the Nag's head, or the south end of St. Christopher's 2 miles.

To anchor in Basseterre road, bring Londonderry fort to bear N. distance about half a mile, and the west point of the bay, W. by N. and then you will have 9 fathoms, good ground.

To anchor in Old road, $1\frac{1}{2}$ league to the westward of Basseterre road; observe there is a black stone or rock, close by the water side, about as large as a Moses boat bottom upwards; keep that stone a little open to the westward of

the westernmost of the negroes' houses, which are on the south side of the hill, a little above the Black rock; for if you shut and bring it on with the negroes' houses, you will have no ground one third of a mile from the shore; but bring it to bear N. N. E. and then it will be a little open, and you will have 9 or 10 fathoms, good ground. Keep Nevis's point a little open with Fort point which is the easternmost point of Old road bay, and the S. W. point of St. Christopher's W. N. W. 2 miles—moor to the S. E.

Remarks made in Basseterre Road and Old Road.

IN Basseterre, which is a large open bay, the marks of the anchorage are as follow: The long point of Nevis, S. S. E. Nag's head, S. E. Bluff point, W. $\frac{1}{2}$ N.—the town of Basseterre, N.—distance off shore, half a mile—depth of water 7 fathoms—wood purchased, water better, and easier got, at Old road, about $1\frac{1}{2}$ league from hence. Tides, none.

In Old road, the following are the marks of the anchorage, viz. The Long point of Nevis, S. E. southerly.—Stony fort, E. S. E. The westernmost point of Old road, N. W. by N.—Stony point, S. E. $\frac{1}{2}$ E. Depth of water where the anchor lay $10\frac{1}{2}$ fathoms; one third of a cable out—wind off the land—13 fathoms under the stern—west distance off shore two thirds of a mile. You land your casks, roll them about 100 yards, and fill them at a running gullet; then float them off to the boat—a great surf and a rocky shore.

THE ISLANDS OF ST. EUSTATIA AND SABA.

ST. EUSTATIA lies 5 miles W. N. W. from Sandy point, the westernmost head-land of St. Christopher's; in the channel, above $1\frac{1}{2}$ mile from the point, and with the aforesaid bearing, lies a danger called the Sheep. St. Eustatia is a steep rock rising out of the sea, to a great height, about three miles in length, and 2 in breadth. At a distance it appears in the manner of a sugar loaf, ascending up in a round hill; but coming near, it alters its shape, and seems somewhat long. This rock is composed of two mountains, whose middle land is pretty even. The south mountain is a great deal higher than that to the N. W. it is hollow in the middle, and the excavation appears to have been the crater of the exhausted volcano which constitutes the island; the bottom is pretty near on a level with the town.

The anchorage in the road of St. Eustatia, is none of the best; there is a swell when the wind blows from the S. E. quarter; besides the landing is very difficult on account of the great and continual breaking of the waves against the shore. If you intend to anchor in this road, you must bring the tower of the church N. E. by E. and the west end of the bay, called Interloper's cape, N. W. by N. Then you will have 9 or 10 fathoms, sandy ground, distance less than a quarter of a league from the shore; you may even anchor farther in the offing, in 14 or 15 fathoms same ground. This road is much frequented; and you will see ships there, even in the hurricane months; but in this season they must be very attentive to the wind, and on the smallest appearance of a squall from the south put immediately to sea.

The isle of St. Eustatia is pretty clear all round, except to the S. E. of the bay, where there is a shoal which stretches about 150 fathoms into the sea.

The island of Saba, still smaller than St. Eustatia, lies 4 leagues to the N. W. of it. It is another steep rock of a round form, which is accessible only on the south side, and you must climb almost to the top, through a very crabbed artificial path, to find any earth: it is inhabited by about 50 European families and 2 or 300 slaves. You may see the bottom round this island, but you need not fear, for there is no danger but what is visible. Also round about it, makes as it were certain heaps of white sand, and by the sides thereof, it shows like a ship under sail. On the N. W. side lies a rock, about a musket shot from the shore, which afar off seems like a sail. South and north about 2 leagues off in the sea, is not above 10 fathoms water, clear sand ground.

The Islands of St. Bartholomew, St. Martin, and Anguilla, with Dog Island and Prickly Pear Island.

ST. BARTHOLOMEW'S S. W. end bears from Sandy point, in St. Christopher's S. $\frac{1}{2}$ E. distance 7 leagues. It lies E. and W. and is 5 or 6 leagues long. The middle part is very high land; its shores are extremely dangerous, chiefly on the north part, where there are many rocks above and under water, and the approaching them requires an experienced pilot. But it enjoys the advantage of having a very good harbour, of an excellent hold, in which ships of any size are perfectly sheltered from all winds. The island of St. Bartholomew appears at first almost round, and can be seen 9 or 10 leagues off. E. by N. $\frac{1}{2}$ N. 14 leagues distant from the island, lies a large bed of rocks, about 20 yards square. On the west side of it is a swell. The rock is sharp pointed, and sometimes covered; when the sea falls it is about 4 feet dry. Its lat. is $18^{\circ} 2' N$.

St. Martin's, an island about as long as St. Bartholomew, but wider, is separated from it by a channel 2 leagues broad; in the middle of the W. entrance of this channel, 4 miles W. N. W. from the north point of St. Bartholomew, lies a large rock surrounded with many others above water. This island contains a great number of mountains, or rather huge rocks covered with heath which can be seen above 10 leagues off. The west side is pretty low along the seashore for about 2 leagues. The sea is rarely disturbed, and the anchorage safe every where about the island, especially with a N. E. wind.

On the west side lies the Dutch town, whose harbour has 8, 9 or 10 fathoms, good sandy ground. Near it are three salt ponds, where they make a great quantity of salt. You may range the westernmost point of St. Martin's within 2 miles, and nearer, and have from 30 to 55 fathoms, rocky and corally ground.

The French town lies on the south side, above 3 leagues east from the Dutch town, on a bay called L'Ause au Flamands.

Anguilla lies E. by N. $\frac{1}{2}$ N. and W. by S. $\frac{1}{2}$ S. above two leagues to the north of St. Martin's; it is a low, flat, and withered island, without any mountains, so that it cannot be seen further off than 4 or 5 leagues. The anchoring ground is good on the south side, because the current there has no force, on account of a long ledge which stretches off S. E. from the east point. On the south part of the west point there lies, about 1 mile from the shore, a small island not above 100 fathoms in length.

To the N. W. by W. of the west point of Anguilla, distance about 4 leagues, lie several small islands the principal of which are Prickly Pear island, and Dog island, between which is a good channel. The first is the easternmost; the second which is the largest of all, lies further than any of them to the west, save a little rock that is almost joined with it on the west side; it is about one mile in length and has a few inhabitants; all these islands are very low, and cannot be seen further off than 4 or 5 leagues.

Bearings taken and remarks made in sailing between the above-mentioned islands by an experienced Navigator.

“WHEN we came to sail so far out, I found that the highest top of St. Eustatia came even with the top of Brimstone hill, and that the two southernmost points of St. Christopher's and St. Eustatia were in one, and bore N. W. by N. At the same time, Fort Tison bore N. E. easterly, when Sandy point, and Tumble-down-dick, or the northernmost part of St. Eustatia, come in one, and bears W. N. W.

“The direct course from the west end of St. Christopher's is N. N. W. to St. Martin's west end, and so through between the Dog and Prickly Pear. For when you are within half a mile of the west end of St. Martin's the southernmost land of St. Bartholomew comes in one with the southernmost land in sight of St. Martin's, and they bear S. E. by E. and then Saba will bear S. by W. westerly. By the aforesaid bearings of St. Bartholomew and Saba, if you see either of them, you may by them know how to direct your course for the west part of St. Martin's.

“The west part of St. Martin's and the west end of Anguilla bear N. N. W. northerly. When the N. E. part of Anguilla, the north side of Prickly Pear, and the middle of Dog island, bear all in one, it is E. and W. Three miles N. of Dog island, I observed at noon, and found the lat. $18^{\circ} 26' N.$; and the variation $2^{\circ} 30' E.$ At the same time St. Martin's showed itself beyond Anguilla from E. S. E. to S. by W.”

The Little Island and Bank of Avis.

THIS solitary island lies west 42 leagues from Prince Rupert's Bay, in Dominico, and S. S. W. $\frac{1}{4}$ S. 41 leagues from Saba; its latitude being $15^{\circ} 42' 30'' N.$ and its longitude from London about $63^{\circ} 52' 17'' W.$

This island is no more than 2 or 3 leagues in circumference; to the west and the N. W. there are two islands, at the distance of 6 or 700 paces, which appear only barren rocks, and is the resort of birds. These rocks may be a quarter of a league round; they are joined with the islands by shoals and breakers which are seen at low water. This island is a great deal longer than it is broad, and appears at a distance like a sand bank even with the water's edge. The middle part rises more than 16 yards above the level of the sea. There are some reefs to the east and N. E. which extend a great way into the sea. You may anchor on the S. W. half a pistol shot from the shore, in $3\frac{1}{2}$ fathoms, white sand. There is neither pond nor spring of fresh water on this island.

From the island of Avis, to the isle of Saba, there lies a sand bank, to the N. by E. or N. N. E. whose length is about 41 leagues, and the breadth not more than 2, the depth varying upon it from 10 to 20 fathoms.

The Virgin Islands.

UNDER that name are included all the small islands and keys which lie between the Carribee islands and Portorico. They take up a space from east to west about 30 leagues long, quite to the eastern side of Portorico, with a breadth of about 20. They are composed of 35 or 40 small islands, whose rocky shore, surrounded with dangers, are famous for shipwrecks, and particularly of several galleons. Happily for the trade and navigation of those islands, nature has placed in the middle of them a large bason 3 or 4 leagues broad, and 6 or 7 long, the finest that can be imagined, and wherein ships may lie at anchor landlocked, and sheltered from all winds. The Buccaneers called it the Virgin's Gangway; but its true name is Sir Francis Drake's bay.

Most of the larger islands are pretty high land, and seem as if they were all joined together, but there are several deep channels between them, through which those who are well acquainted may sail with safety: in all these channels there is great plenty of fish.

THE ISLANDS OF SANTA CRUZ, ST. JOHN, ST. THOMAS, BIEQUE, &c.

SANTA CRUZ, or St. Croix, is the southernmost of the Virgin islands; it lies W. by N. from sandy point, in St. Kitts, distance 33 leagues. The island is not very high, but full of hummocks, two of which, (on the east side,) are higher than all the rest. It is of a triangular form, its length being about 8 leagues, and the greatest breadth 2 leagues. On the S. E. end is a flat, stretching a great way into the sea; the whole south side is bordered with reefs and shoals, which make it dangerous to come near.

Santa Cruz is badly watered. The chief town, called Christianstæd, is situated at the bottom of a bay on the north coast, under the cannons of a fortress which defends the principal harbour. The other town, named Fridrichstæd, lies on the west side.

From the town of Christianstæd, to the S. W. point of St. John's island, the course is N. by E. about 6 leagues. In the channel about 6 miles S. by W. of

this point, lies a remarkable round rock, called Bird's key, or French key, which is about one quarter as large as Redondo near Monserrat.

St. John's is 2 leagues broad, and 4 in length; it is the best watered among the Virgin's, and its harbour on the east side of the island, passes for the best to the leeward of Antigua.

The east point of this harbour is called Moor's point, and is of a moderate size; but the walls of the fortress, which are all white, may be seen 7 or 8 leagues off. You have regular soundings from a little without the Moor's point quite into the harbour, from 10 to 5 fathoms water. The mouth of the harbour is not quite half a mile broad, and off the lee or west side there is a key, with a reef from the inside of it, that runs to the southward. As the entrance of the harbour lies, with the wind any thing to the northward of east, you may lie in it; but if the wind is any thing to the southward of E. S. E. you must anchor without the point and warp in. The Governor's house, and part of the town, are not above half a mile within the point on the east side; but there is a large harbour with lagoons, &c. You anchor within a $\frac{1}{4}$ of a mile of the weather shore, in 5 fathoms water, good ground, and run a stream anchor to the S. W. by reason of the land breeze, which is at most times between the S. S. E. south, and S. S. W. you moor N. E. and S. W. When you are here the harbour is wide and large, but there is not above 5 fathoms within. The fortress is very strong; there is besides a small fort upon the reef that runs in from the key before mentioned. The harbour is full of lagoons and rivulets, and runs a long way to the northward.

Observe, in coming in, to leave one third of the channel to windward from the Moor's point, and two thirds to leeward towards the key, and you will not have less than 5 fathoms water.

There is a small bank which does not show itself, and lies right off from the gate, a cable's length from shore, with only 10 feet water on it.

The watering place is at the south side of the town, just without the south gate, but the water is brackish.

If you are bound to Portorico, from the eastward, night coming on, and you off the E. N. E. part of St. John's, you will take notice of the easternmost high land; it is inland a little from the east end of the island, which is low. You may run to the westward till you bring that high land to bear S. by E. and then bring to till morning. But take great care that this high land does not deceive you, for it lies a long way in the country, and it is all low land by the water side. In the morning make sail; you may see the walls and works all white about Moore's point.

From the south point of St. John's island, called Ram's head, to the entrance of St. Thomas' harbour, the course is about W. $6\frac{1}{2}$ leagues; and from the N. side of Santa Cruz, N. N. W. $\frac{1}{2}$ N. 10 leagues. The latitude of St. Thomas' town, is $18^{\circ} 21' 56''$ N.

The island of St. Thomas is about the length of St. John's, but narrower. Its soil is sandy and badly watered. The principal advantage of St. Thomas' island consists in a very good harbour, on the south side, where 50 ships may lie very secure.

In running down from St. John's to St. Thomas' harbour, you leave French key to the southward of you, and you continue your W. N. W. course till you come down to Buck keys; they are much lower and longer than French key, before mentioned, and there is a small opening of no consequence between them. You leave these keys to the southward of you * about one mile, and then steer N. W. When you bring them S. E. and continue that N. W. course about 2 or 3 miles till you bring the harbour open; then haul in for the town N. by W. or N. N. W. giving the east shore all along a good birth, and run within $\frac{1}{2}$ a mile of the fort which is white and plainly seen at the east of the town. You anchor

* The channel between the main island and Buck island is but $1\frac{1}{2}$ mile broad and at the entrance, in the fair way, lies a sunken rock, above half a mile north from the north end of Buck island, with only 5 feet water on it.

in 5 fathoms water, fine clear ground; it is a fine harbour, where you are landlocked from all winds, but from the S. by W. to S. E. by S. which part lies open to the sea; but the wind seldom blows in unless it is in the hurricane months. There is a rock above water in the harbour's mouth (called Prince Rupert's cliff,) which you leave to the eastward of you; you may make bold with the west side of it, but there is no passage within.

From St. Thomas' harbour, if bound to Portorico, being in the offing, steer W. by N. till you come down the length of the west end of the island, which is about 3 leagues from the harbour. You will see a small island called Little passage, about 4 or 5 miles to the westward of the west end of Little St. Thomas. Little St. Thomas is a small island that almost joins with the west end of the Great island; there is a small opening between them, but of no note. There is likewise a channel of small importance between Little passage and Little St. Thomas; but there are two other islands before you come down to the west end of that island. The easternmost, just to leeward of the harbour is called Water island, and almost joins with the main land; about 2 or 3 miles to leeward of that, is a rocky island, about half a mile round, which lies a mile from the shore, and is called Little Saba; it is foul all round, and must have a good birth, all the shore along these islands must be left on your starboard hand. In running down till you pass Little passage, you have soundings all the way, but deep in some places.

W. S. W. $\frac{1}{2}$ S. from the mouth of St. Thomas' harbour, above 4 leagues, and S. W. by S. 7 miles from the west point of the island, lies a remarkable rock in the middle of the channel. It is round, rugged and double pointed, as high as Beachy-head, and may be seen 5 or 6 leagues off, being all white; it appears at some distance like a sail, whence it has been called St. Thomas' carvel, or St. Thomas' hoy. This rock is bold too all round.

Two leagues and a half from the carvel^{is} Great passage island, bearing west from the west end of St. Thomas about 4 leagues. Several Keys and rocks lie round this island, and chiefly to the westward of it; they are called the Tropic keys, from the great number of tropic birds breeding there. Great passage island must have a large birth; the channel between the two passage islands is near 3 leagues broad; keep nighest the little one to the eastward, leaving all the others to the southward.

The island of Portorico is high land, and may be seen from off St. Thomas. Little passage island is 2 miles in length, and about as high as Barbadoes; Great passage island is about the same height, and three times as long as the former; there are two or three small islands a little to the northward of Little passage island.

The course through the passage islands is N. W. or, if you have but little wind keep N. N. W. for fear of a calm, and lee current, the west side being foul, and dangerous without wind. You must keep that N. W. course till you bring the E. N. E. point of Portorico, which is a low point, to bear W. by S. or W. S. W. and then you may steer west, which course will carry you to St. Juan, the chief town of Portorico. From the west end of Little passage island to Spill staff's keys, which lie 2 leagues from the N. E. end of Portorico, the course is W. N. W. 9 leagues; and the shoalest water 5 fathoms.

S. W. of St. Thomas' harbour, 7 or 8 leagues, and 3 or 4 south of Great passage island, lies the island of Bieque, called also Crab island, from the great quantity of crabs that are found there. It is about as high as Marygalante, with a rich soil, and full of trees almost all over. The west end on the N. E. part, is low and smooth land, like sandy ground; but towards the S. W. there are hills, and from those hills to the west, low broken hummocks; then to the S. W. higher hills and hummocks. From the west end of Little passage island to the east end of Crab island, the course is S. $\frac{1}{2}$ W. 5 leagues; $5\frac{1}{2}$ fathoms 1 mile from the shore. In going to Crab island, be sure to run down the south side of it, for the north part is foul. You may sail within 2 or 3 miles of the shore all the way down, till you come to the west end, and then you will see a low sandy point; anchor on the south side of that point; you will not have above $3\frac{1}{2}$ or 4

fathoms 2 miles off. You may run in till you bring that low sandy point to bear N. by E. $\frac{1}{2}$ E. and the south point of the bay S. E. then you will be $1\frac{1}{2}$ mile from the shore, in 4 fathoms water. Here is plenty of fish to be caught with a seine, on the north side of the low sandy point, in the morning, and good wood of different kinds; water is to be had about half a mile to the southward of the low sandy point, a little way from the west side.

Crab island lies about 5 leagues from Portorico, being 5 or 6 leagues long, and 2 broad. It is uninhabited; the English, who have attempted twice to settle there, have been driven away by the Spaniards.

THE ISLANDS OF TORTOLA, VIRGIN GORDA, ANEGADA, &c.

TORTOLA, a few miles to the eastward of St. John's is the principal of the English Virgin islands; it is near 5 leagues long, and 2 broad, but badly watered, and has the name of being unhealthy; the cotton which they cultivate there is very much esteemed by the manufacturers.

The town is situated on the south side to the bottom of a bay, 2 miles deep, with a pretty good road at the entrance, with 12 fathoms water, good ground.

Virgin Gorda, (that is the Great Virgin,) or Peniston, and by a corruption generally adopted Spanish town, lies 4 leagues to the east of Tortola; its form is very irregular; it is very high land, about 6 leagues long from east to west, still worse watered than Tortola, and having fewer inhabitants, who cultivate tobacco, indigo, cotton, and pease; their common food is fish and potatoes, they drink rain water, which they keep in wooden casks. It is asserted that the mountain which rises in the middle of the island contains a silver mine. Virgin Gorda has two good harbours: the largest, called East bay, lies on the north side, and you may anchor very safe at the bottom of it, in 5 fathoms; the other is on the west side, where the town is situated in $18^{\circ} 18'$ N. lat.

The course from Saba to Virgin Gorda is N. W. by W. northerly, above 21 leagues. When Virgin Gorda bears from you N. W. by N. 7 leagues off, the Virgins appear like three islands, with a great many small ones about them; the middlemost is the longest, and when you come within 3 leagues, they seem as if they were joined together.

To the S. of the W. end of Virgin Gorda, lies the Fallen city, or Old Jerusalem, a parcel of little broken islands and rocks, just above water, stretching about 3 leagues from N. to S. at their S. end is a remarkable rocky island, called Round rock; the next island is called Ginger island; between which and the Round rock is the eastern passage into the Virgin's gangway, called the King's channel; there is no ground in the passage with the hand lines.

To the W. of Ginger island lie several small islands, called Cooper's salt, Peter's, Normand's, and Witch islands. They bound the Virgin's gangway on the S. as the islands of St. John's, Tortola, Beef, with Dog islands, and Virgin Gorda, terminate it towards the W. and N. The depth in the Virgin's gangway is from 10 to 25 fathoms. It is about 8 leagues long, and from 2 to 4 broad. The N. entrance lies between Dog island, to the E. of Tortola, and the N. W. point of Virgin Gorda, being about half a league broad; the S. entrance, whose breadth is above one league, is between St. John's and Witch island; there is another entrance to the N. of St. John's, scarce a mile over, which is the western passage of the King's channel before mentioned.

Three or four leagues to the north of Virgin Gorda, lies Anegada, or the Drowned island, about as big as the first. This island is very low, and almost covered by the sea at the highest tides. You may discern over it two high hills on Virgin Gorda, which appear like a great hummock. As Anegada projects out of the cluster of the Virgin's, the rocks and shoals with which it is surrounded become so much more dangerous to ships in the offing. The Buccaneers have given the name of Treasure Point to a headland on the south side, that has been often dug to discover the gold and silver which they supposed the Spaniards had buried there after the shipwreck of one of their galleons. From the E. side of Anegada, a very dangerous reef, with only 6 feet, and in some

parts 2 feet water on it, extends in a curve towards the S. E. above 4 leagues. The course between the reef and Virgin Gorda, is N. W. and W. by N. or W. but you must take care of a sunken rock, which lies almost in the middle of the entrance of the narrows, between that island and Anegada.

THE ISLAND OF SOMBRERO.

BETWEEN the Virgin islands, and that of Anguilla, lies a small rocky island about 2 miles in length; it consists of a very flat eminence, without any hummock upon it, covered with birds from the southward. You cannot descry this island further off than 5 or 6 leagues at most.

This wretched island is rugged, steep, and barren; a little camphor and grass are the only vegetable production that appear on its surface; what little water lodges in the cavities of rocks during rains soon evaporates. You may anchor on the west side of it. The cliffs are steep too, and are from 40 to 15 feet high. In 1792 an American brig run against it, and her crew crept from her yard arm to the cliff top. The brig disengaged herself and drifted down to Virgin Gorda, where the hull and cargo became a prize to the wreckers.

The latitude of Sombrero, is $18^{\circ} 38'$ N. and its longitude is $63^{\circ} 30'$ W. from London. Two leagues off Sombrero, when it bears from E. N. E. to E. by S. is found from 35 to 22 fathoms, uneven ground and rocky bottom.

Sombrero lies about 10 leagues due E. from Anegada, and in going between the two, you have 5, 6, 7, 8, and 10 fathoms water. The course from Saba to Sombrero is N. W. by N. $\frac{1}{2}$ N. 20 leagues.

The passage to leeward or windward of Sombrero, is very clear and safe; there is no swell; the winds are generally favourable for going out; and when once you are past Sombrero, all obstacles are at an end.

Directions for sailing along the south side of Portorico.

If you are bound down the south side of Portorico, observe you will see the S. E. point of that island, when lying at anchor at Crab island; it bears from thence S. W. by W. $\frac{1}{2}$ W. or W. S. W. about 5 leagues, and is called Cape Malopasso. You may run down till you come abreast of that cape within 3 or 4 miles of it, and then steer W. and by the time you have run 3 or 4 leagues down past the cape, and that it bears N. E. you will see a large breach 2 or 3 miles long which lies along the shore, and about 3 or 4 miles off the same. Take care to keep a mile or two without the breach; and in running down aback of the breach, you will descry a small building by the water side, which is a guard house. Be sure to run down as before mentioned till you bring that guard house to bear N. or a little to the eastward; then you may haul in N. or N. by E. for the guard house, and anchor in 4 fathoms water, the guard house bearing N. or N. $\frac{1}{2}$ E. or N. by E. distance 1 mile; and the W. end of the breach S. by E. You may run a small anchor to the N. W. for the land breeze; you have no shelter from the sea breeze but the breach: this place, which they call Guyama or Yama bay, is much frequented by traders. In going in, although you give the W. end of the breach a good birth, you must keep your lead going; the soundings are irregular, from 5 to 7, or 8 fathoms water, and then it shoals gradually as you go in shore. The land is low by the water side; in the country it is high and uneven, and has nothing remarkable.

In going out of Guyama bay you run S. S. W. or S. W. The next trading place is called Salines, and lies about 6 or 7 leagues to the westward of the former. After you are out of Guyama bay, about 2 or 3 leagues off, you may steer W. as before, passing several keys to the northward of you, which lie pretty nigh the shore; and when you have run about 6 leagues down, you will see one of those keys lying a little further off shore than the rest; haul in for its W. end, and about a mile or a mile and a half off that W. end, there is a breach, which is a key just under water, no part of it to be seen. Leave that breach to the westward of you, and stroke the weathermost key on board, within a

cable's length; it is bold too, but shoaler to leeward, towards the breach. The guard house is about 3 or 4 miles from this key, and may be seen before you come within; you may run in boldly 2 miles towards the guard house, and anchor within a mile of the same, in 4 or 5 fathoms water, good ground, and moor to the N. W. When at anchor, the guard house bearing N. $\frac{1}{2}$ E. there is a good watering place close to the water side, a kind of lagoon, which is about N. by W. from the ship, and half a mile to the westward of the guard house; you will see the water white near a league without the key, and have soundings from 12 to 7 fathoms, very gradual, but no danger of any kind. There are several keys which lie within the before-mentioned key, but a little to the eastward of it. In running in, you will see (3 or 4 leagues to the westward) two small keys at a little distance from each other; one of them looking double, the other single; you may go to the leeward of them. Salinas is a good trading place, as well as a place of safety to lie in; it is about 6 leagues to windward of the Dead Chest, which at most times may be seen very plain from Salinas, and is a good director for it.

In leaving Salinas, run out the same way you came in. After you get without the key, steer S. S. W. till you bring the Dead Chest to bear W. and then run down boldly, giving it a mile birth; there is a small key on the S. W. part of the Dead Chest, about a cable's length off, but there is no going between them, as the interval is almost dry: you must give the W. point of that key a mile and a half birth, then haul in, and you may anchor under the lee of the Dead Chest in what water you please, from 7 to 12 fathoms water; the W. point of the small key bearing S. by E. $\frac{1}{2}$ E. distance $1\frac{1}{2}$ mile, and the N. point of the Dead Chest N. E. $\frac{1}{2}$ E. distance from the shore 1 mile; then you have 10 fathoms water. There is a small trading place called Boca chica, to the northward of the north end of the Dead Chest, with the guard house, which you cannot see when you lie at anchor at the Dead Chest; but you may reach over from the Dead Chest boldly, it is about 7 or 8 miles; keep your lead going; you will have from 7 to 4 fathoms, and it shoals gradually as you come nigher the Portorico side. There is another small trading place, called Yamma Grande, 2 or 3 leagues to windward of this.

The Dead Chest,* or Deadman's Chest, lies 16 or 17 leagues from Cape Malopasso, the E. end of the island, and about the same distance from Cape Roxo, (or Red cape,) which is the S. W. end. In running down, as before mentioned, do not come within $2\frac{1}{2}$ leagues of the shore. After you get a little without the Dead Chest, a W. course will keep you clear of all; keep that course till you bring Cape Roxo, (which is low and appears gray, and like two keys,) to bear N. E. then steer N. W. till you bring the island Zacheo N. by W. from you. You may then steer N. W. by W. for the island, till you come within 3, 4, or 5 leagues of it, when you may haul up a little and go between Zacheo N. by W. and St. German's point, the W. N. W. end of Portorico. It is a very good channel, about 4 leagues broad; with the before-mentioned courses you will be about $2\frac{1}{2}$ leagues from the W. end of Portorico, and will not have less than 12 fathoms water. The island Zacheo is about twice as large as Redondo, and may be seen 12 leagues off.

Observe that in sailing along the south side of Portorico, you are exposed to sudden calms, the island intercepting all the breezes between the north and the east.

On the W. side of Portorico, is the Aguada Nueva, one of the finest roads for shipping in all the West Indies, being sheltered from the trade winds by the island. Here the galleons and flota generally anchored when they came from Spain; and the Barlovento fleet, after they had been at Cumanagote, came here

* The Dead Chest is a small island, distance from Portorico about two leagues, near the middle of its south side. It is $1\frac{1}{2}$ leagues in length, and 1000 or 1200 paces in breadth. It is said, that when you see it from a certain point, it appears like a corpse lying on a table. The shores of this island towards Portorico are flat and sandy; on the south side they are high and stony. There is no fresh water, nor trees of any kind, but for fuel.

for fresh water and provision, before they returned to Vera Cruz. You may anchor in this road in 23, 18, 14, and down to 8 fathoms, good ground. When in 23 fathoms, soft oozy ground, the northernmost point bears from you N. N. W. 3 miles, and the other S. by E. about two leagues, and a small village amongst the trees, is distant about 1 mile. In coming into this road from the northward, you may sail within a mile of the shore to the southward of the N. point, there being 10, 12, and 15 fathoms water; and after you are about that point, you will have 25 and 30, soft oozy ground; some part along the road is flat and rocky, but you may sail all around it within half a mile of the shore.

Extract of the Journal of an experienced Navigator, along the south side of Portorico, and in the channel between Portorico and St. Domingo, &c.

"MAY 19th.—At 5 o'clock, P. M. we thought we descried to N. W. and N. W. by N. the little island of Boriquem, (Crab island,) situated near the S. E. end of Portorico. At 11, we saw the land on the larboard hand; I supposed it to be the east point of Portorico, which bore from us N. W. and N. W. by N. distance about 3 leagues; I steered west to run along its south side.

"MAY 20th.—At half past 5, A. M. we saw Portorico, and the Dead Chest, which is a small island detached from the main one, and having the form of a coffin. It lies very near the middle of the south coast, and I have been assured, that there is a passage for the largest ships between it and the main land.

"I ran along the land, with an offing of 3 or 4 leagues, to fetch Cape Roxo, the westernmost of the south coast of Portorico, and which forms, with the S. E. point of St. Domingo and Saona island, a channel from 15 to 20 leagues broad.

"About 10 A. M. we saw the water discoloured: we were upon a shoal, called the White grounds, which encompass Cape Roxo, and extend 3 or 4 leagues to the S. W. and 2 or 3 leagues to the eastward and westward of this cape. You have there 10, 12, and 15 fathoms. The sand at the bottom is of such a shining white, that it pierces through the water. We caught plenty of fish with the line.

"At 11, we distinguished a cape which lies a little to the eastward of Cape Roxo; it is terminated to the south by four little islands, which seem to be one league distant from it. To the east of this cape is a small bay, called in Van Keulan's chart by the name of Porto Guonica.—The West India sloops can moor there: we saw two of them at anchor. This cape is low, and appeared at first as a detached land, but we soon discovered the low land by which it is connected with the main island. Cape Roxo, which you soon descried to the westward of this, and which is the westernmost point of the island, is still lower than the former. Between the two you distinguish a flat and very white sandy shore; it consists of the same sand that composes the White grounds, through which you may sail, but you must not come nearer the coast than 2 leagues.

"In the western part of the channel, between Portorico and St. Domingo, and near mid-channel, are two small islands: the easternmost, which is likewise the southernmost, is called Mona; the second to the N. W. of the former, distance about $2\frac{1}{2}$ leagues, is called Monica. You must pass, if possible, to the windward, that is to the east of those two islands, in order to double with more facility, Cape Enganno, that forms the going out of the channel, to the west, on the side of St. Domingo. When you have doubled Cape Roxo, you descried to the northward Zacheo, a little island lying 8 or 9 leagues to the N. E. by N. of Mona. You leave Zacheo to windward, to pass between it and the small island of Mona, very near mid-channel; there is no danger but what you can see. When the wind comes from the E. S. E. or only from the east, you are not obliged to tack, you cross the channel with a quarter wind. It is sufficient to steer N. W. by N. to fetch Cape Raphael, which is the N. E. point of St. Domingo, or even Cape Samana, that lies about 8 leagues to the N. W. of the former. Samana island, whence this cape takes its name, extends from east to west, 12 leagues; it is so near St. Domingo that it appears to be joined with it.

"At noon, Cape Roxo bore N. by W. distance $3\frac{1}{2}$ leagues. It was not possible, on account of the cloudy weather, to take the meridian altitude of the sun. We steered N. W. by N. to enter the channel.

"At half an hour after 12, I could see Zacheo very plainly: I continued the same course to run along it, at one or two leagues distance. This island appears to be 800 or 1000 yards long; it is nothing more than a green mountain, on several parts of which you see some woods. I was too much to windward to see the islands of Mona and Monica from the deck, but they could be perceived from the mast head. The wind kept to the S. E. till 4 o'clock. It is very seldom, that in sailing through the channel of Portorico you go before the wind as I did."

Of the North Coast of Portorico.

THE north coast of Portorico, which extends, like the south coast, east and west, is very little known. It is rugged and uneven, having many rocks and small islands, where the sea beats sometimes with violence. On that coast, about 12 leagues from the N. E. point, is the town of St. Juan, the capital of the island. It is the see of a bishop, large, and well built, and defended by several strong forts. They have no water, except rain, which they preserve in cisterns. This place is better inhabited than most Spanish cities in the West Indies, being the centre of the contraband trade carried on by the English and French with the subjects of Spain, notwithstanding the severity of the laws, and the extraordinary precautions taken to prevent it. The harbour of St. Juan is very capacious, and the largest ships may lie there with the utmost safety, in 5, 6, and 7 fathoms water. The entrance is along the eastern island (called Rigo or Rigoa,) near which you must sail by reason of a shoal that stretches on the opposite side. On the point of the said island stands the Morro Castle; and on the west side, upon a rock off the Sandy point stands a little square fort called el Canuelo; you must run to the eastward of the city, to lie out of the wash of the sea, for the trade wind blows right in. Off the N. E. point of the island lie several islands, the largest whereof is called Cagada. The next to the westward is Canoba, the river within retaining the same name. To the westward of this lies Point Loquilla, which receives its name from the mountain Loquilla; then river Loquilla, right before which lie two rocks above water. Then follows a creek called Bequiario, and the island Rigo, which lies before the harbour of Portorico. Westward of the harbour called la Caleca, and just in its entrance, is a river and island called Passays, which reaches with a flat from the west point.

THE SILVER KEY.

THIS shoal has more extent than the Square Handkerchief; the southern point is in the lat. of $20^{\circ} 13'$, and the northernmost part in $20^{\circ} 32'$. It is a very white ground in many places, especially in the north part, and very brown in the S. and S. E. parts.

The N. and N. N. W. parts have some keys, with no more than 8 or 9 feet water, and perhaps less; but it appears that these keys are not exactly on the edge. The master of a schooner, drawing 9 feet water, found himself ashore on the Silver Keys, coming down, after he had run near a mile S. W. on very white grounds. The E. or rather the N. E. edge is very dangerous. In this part there are 3 keys, within a cable's length of the edge, which have not more than 10 or 12 feet water.

The west side is safe, and there is a great depth of water; but about $1\frac{1}{2}$ league on the east side the bottom decreases, and you see shoals in the N. E. which are rising very near the surface.

Ships ought never to venture within any part of the white grounds, where you will often fall from 14 fathoms to 10 feet; if by accident they find themselves in the middle of them, the best way is to tack, and go out the same way they came in, ranging along the grounds.

Should you by any circumstances be forced to go from Cape Francois through the passage between the Square Handkerchief and the Silver Keys, you must at the departure make your course good N. E. by E. and E. N. E. If the winds suffer you to steer that course, you would pass in the mid channel; but if you are forced to turn, and you would not get sight of the St. Domingo shore, after you have once got into the longitude of $70^{\circ} 15' W.$ from London, you must not pass the lat. of $20^{\circ} 25'$ without frequently heaving the lead. If you come as far as $20^{\circ} 35'$ without getting ground, you have nothing to fear from the Silver Keys, and must only look out for the Square Handkerchief, which is not dangerous on the south, the bottom giving you notice in 10 and 15 fathoms. You must continue to get to the eastward, and when you come in the lat. of $21^{\circ} 20'$ you are entirely out of the passage.

The Silver key is 11 leagues long, E. and W. and 7 leagues broad, N. and S. in the greatest dimension. The westernmost part lies N. and S. from Old Cape Francois.

The Square Handkerchief, and the Silver keys, bear from each other S. E. and N. W. The channel between the two is very safe, and 14 leagues in breadth.

You experience on the edges of the shoals weak currents, which generally follow the directions of those edges. On the Square Handkerchief they are scarcely felt; on the S. E. part of the Silver keys you find them setting to the W. and N. W. but a short league from the ground, their effect is not perceivable.

In general, you ought not to mind, in your reckoning, the weak currents which exist in these passages, they being no where to be feared.

Directions for Turks Island Passage.

THIS passage is the nearest, shortest, and least dangerous of any, for ships going from Hispaniola; but in general the winds will not allow to make it even from Cape Francois, or Port Dauphin, although they are the nearest ports; the winds being commonly easterly, it is difficult to fetch Sand key, (the southernmost of the Turks islands,) and which you must make, that you may be sure of the Passage; for, without seeing it, you run a great risk of getting upon the reefs and shoals of the Caycos bank, which are not thoroughly known.

When you take your departure from Cape Francois, if the wind will permit you, make a N. E. course about 30 leagues; you will then be in lat. $21^{\circ} 02'$, and in sight of the Turks islands.

The Endymion rock lies S. W. by S. from the body of Sand key, distance 8 or 9 miles. The danger of this shoal is but of small extent. It consists of 7 or 8 heads of rocks, one of which has only $8\frac{1}{2}$ feet water on it; this is the rock where the English ship Endymion was wrecked on the 28th of August, 1790, and till then undiscovered. Some of the other rocks have 2, 3, and 4 fathoms on them, and between them 7, 8, and 9 fathoms water. The exact soundings between the key and the shoal, could not be ascertained by reason of the blowing weather and for want of time. There are four rocks which lie off to the eastward of the south end of Sand key, two of them show themselves above the water, and the two others are even with it. The reef from the north end of the key stretches to the northward $1\frac{1}{2}$ or 2 miles, and has some rocks out of the water. The channel between the shoal and the key appears to be clear and spacious.

Sand key makes the entrance of this passage from the south, and it is very necessary to make it, and to get within a league or two of it; you may pass by it at that distance, and you will then make the second of those islands, called Little salt key, (Little Turk,) a N. N. E. course will carry you along it, at the same distance you passed the other; it is about $4\frac{1}{2}$ miles long. Continuing the same course, you will see Great salt key, (Grand Turk,) which is scarce 3 leagues from the little one. This is the last island in the passage, and you may keep about the same distance from this as you did from the others. When you have brought its northernmost point to bear S. E. 2 leagues, you are clear of every thing, even of the bank of rocks which lie off the N. E. point of the Great Cayco, as also of the rocks which are off the north point of the Great salt key.

The Caycos Passage.

THIS is the only Passage you ought to take, coming out of Cape Francois, when the winds are not steady from the E. S. E. You will always go with a large wind, which is a great advantage, and will avoid all the white grounds to the S. E. of the Caycos which it is customary to make. This method of coming into the white grounds is very bad, and very dangerous, whereas there is no risk in making the land some leagues to leeward of the Little Cayco.

In leaving the Cape you must steer a N. by W. course, and after having run

35 leagues you will find yourself $2\frac{1}{2}$ leagues S. W. of the Little Cayco; then you may haul your wind, first, as high as north only, on account of the reefs of Sandy island, which lies to the north of the Little Cayco; after which you may steer N. by E. 5 or 6 leagues, when you may haul up N. E. or may continue to steer north without any fear. After having run 10 or 12 leagues on that course, you are out of the Passage.

If, when you are two leagues S. W. of the Little Cayco, the winds do not permit you to steer N. by E. or to make a good north course; after having run 13 leagues without getting sight of Mogane island (Mayaguana) the best way, if night comes on, is to tack and stand S. E. 3 or 4 leagues, then tack again to the north, and you will weather, by 3 or 4 leagues, the breakers off the east point of Mogane. If, when you are to the S. W. of the Little Cayco, 2 or 3 leagues, the wind will not suffer you to lay north, you must not attempt to go to the windward of Mogane, but go to fetch the channel between it and the Isles Plates, or Flat islands. You must steer for it N. W. 5° N. Having run 13 leagues, you are in sight of the west point of Mogane, which ought to be north of you, about two leagues distant, you do not run any risk in approaching this point, which is safe; a small white shoal runs off from it, with three fathoms water almost close to the shore. When you have doubled Mogane West Point, so as to bring it to bear east, you may, if the wind permits, steer north. In that case you will pass 3 or 4 leagues to the windward of Samana island; but if your course is not better than N. by W. after having run on 12 or 13 leagues, and the night comes on before you can see Samana, tack and stand on for 5 or 6 leagues; then make good a N. by W. course on the other tack, and you will weather the eastern breakers or Atwood's key, or Samana island, at 3 leagues. Should you be two leagues from the West point of Mogane, and the wind will permit you to make only a N. N. W. course, after having run six leagues on that course, you will see the Flat islands, bearing W. N. W. 2 leagues; then you may pass to windward or leeward of them, as the wind may admit; when you are come $1\frac{1}{2}$ or two leagues north, or N. E. of the Great flat island, you may steer N. N. W. and N. W. $\frac{1}{4}$ N. without any fear, and after running 12 or 13 leagues, you are out of the Passage. You must not go in the least to the northward of this course, on account of Samana, whose breakers off the West point bear N. N. W. from the westernmost of the Flat islands.

The Flat Islands are very low, they bear from the S. W. point of Mogane N. W. $\frac{1}{4}$ W. $8\frac{3}{4}$ leagues. You may go pretty close on the east, north, and south sides; the white bottom which encloses them being pretty steep. On the N. W. of the large island, the reef running out some little way, it is necessary to give it a good birth. You may anchor on the S. W. part of the white bottom, but very close to the shore, there is a small lagoon of fresh water, supplied entirely by the rain.

Little Heneaga lies to the leeward of the Little Cayco, and is seldom seen by navigators, whose wish is always to cross this Archipelago as quick as possible: nevertheless, as you may have a N. E. wind in the mid-channel between the Caycos and St. Domingo, it is requisite you should know the east side of the Great and Little Heneaga.

Little Heneaga bears W. 8° S. from the Little Cayco, 9 leagues; it is rather low, and very much like the islands above described, it leaves a very deep channel of $1\frac{1}{2}$ league between it and the north part of Great Heneaga; the two sides are steep within a cable's length of the shore; at the same length from the shore you may go within a mile of any part of Little Heneaga. There is a small reef which does not run a mile, off the S. E. part; and on the south side a white bottom bordered with a reef, at the foot of which you will have 40 fathoms. If you should be drove by the winds near Little Heneaga, and should find yourself to the N. E. of the East point, one or two leagues off, you ought then to steer N. N. W. 15 leagues, to come two leagues south of the West point of Mogane, from whence you are to proceed as already said.

The East coast of the Great Heneaga, is bordered with a reef; it runs in a N. N. E. and S. S. W. direction, 6 leagues; then W. by S. 9 leagues, and joins

the Point called *Pointe des Paille-enculs*, off which a reef extends 2 miles into the sea.

Leaving Cape Francois, you generally find the wind at S. E. or E. S. E. and near the shore the current runs to windward; these are two powerful inducements to engage you to steer N. E. or N. N. E. for the Turks Island Passage: but about 10 or 11 o'clock the wind generally turns round to the north, and sometimes as far as N. E. Being then 5 or 6 leagues from the coast, and the current no longer felt, you must necessarily make the White Grounds to the southward of the Caycos. So many ships are lost there, by the greediness of getting 20 leagues to windward, which are scarce an object, and when the risk is evident, that this consideration should induce navigators, when they set sail from Cape Francois, to steer at once for the Little Cayco, as before observed.

The Caycos.

THE Caycos are an assemblage of several islands and islots, which inclose a white shoal, some part of which are very shallow, and others tolerably deep; there are four principal islands—viz. The Great Cayco, the North Cayco, the N. W. Cayco, or Providenciers island, and the Little Cayco; they form a semi-circle from the E. to the W. coming by the N.; and are terminated on the S. part by a great bank, on which you will find from 3 to 15 feet water.

The north part of these islands is bordered with a white shoal, on which is a reef extending only half a league from shore; in the N. E. part of the white shoal, runs out in a point, a whole league, and at its extremity is a reef called *Basse St. Phillippe*, (St. Philip's shoal) on which the sea breaks with violence: at a cable's length to the north, and the east of this shoal, you will not have less than 7 fathoms. South of it the white bottom runs to the south, and approaches insensibly towards the shore; you find 4 or 6 fathoms between it and the shore, which in an urgent case, leaves a sure passage.

The east coast of the Great Cayco, and the west coast of the Little, are safe and bold to within half a league of the shore.

From the beginning of the south point of the Little Cayco, a chain of breakers extends to the east 3 leagues, after which they decrease, and run towards the south, to join a sandy islot, called *French key*. This is low, with some bushes on it, and bears from the south point of Little Cayco E. S. E. 5 leagues. The reef from the French key stretches to the south $7\frac{1}{2}$ leagues to join another sandy islot, which has not more than 20 paces extent, and is entirely drowned at high-water: all this part of the reef is bold, and as the water breaks pretty strong upon it, you easily see it in time; but south of the sandy islot there are no breakers, and you cannot have notice of the edge of the bank but by the whiteness of the water.

From this sandy islot the bank runs a short league to the south, then to the S. E. 3 leagues, when it trenches to the N. E. and afterwards runs S. S. E. two leagues, till abreast of the southern islots, which are situated a league within the white water. These islots are within $21^{\circ} 10'$ north latitude.

From the sandy islots as far as abreast of the southern ones, the bank is very dangerous you cannot see any land, and come suddenly from a sea without bottom, into 2 or 3 fathoms. The colour of the water is the only thing that can warn you of the danger, and this is by no means certain, for navigators accustomed to see on the surface of the water the shadow of clouds, which sometimes has the appearance of shoals, are often lulled into a fatal security. No motive then ought to induce you to approach this part of the bank, and you will do right to keep at a good distance.

If after having been turning to windward several days in this neighbourhood, you have not seen the land, the safest way is never to cross the latitude of 21° in the night, but to wait for daylight; then should you perceive any change in the water, which indicates white grounds, without seeing neither land nor breakers, you may be sure you are on the west side; then you may steer N. W. and N. W. $\frac{1}{4}$ W. to fetch the Little Cayco, and go through the passage to leeward

of these islands. Should you see the southern islots bearing about N. or N. W. you may stand on upon the white water in from 7 to 12 fathoms; then make a tack or two to get to windward, and go through the Turks island passage, which is to windward of the Caycos.

As soon as you see the southern islots the bank is no longer dangerous, and you may go on it as far as 1 or $1\frac{1}{2}$ leagues; S. and S. W. of these islands you will not have less than 7 fathoms, and generally from 9 to 11.

From the westernmost of the southern islot, which is a league within the bank to the easternmost, the bank runs first south 3 leagues, then east 7, afterwards north 2 leagues, and then rounds in, to join a large island to the northwestward, 3 leagues.

The channel between the Caycos and Turks islands is 6 leagues across in the narrowest part; it is a good passage, and without any danger; you may come within half a league of the Caycos, and on the east side of the islots without fear. Through this passage you may turn with great safety, and will not feel the current if you do not come within $1\frac{1}{2}$ league of the shore.

You will find an anchorage on the white shoals, near the south point of the Great Cayco, which may shelter ships that do not draw more than 15 or 16 feet; west of this point there is a fresh water lagoon.

The best anchorage for small vessels is to the west of the north Cayco, near the small island of Pines in the inlet, which that island makes with Providenciers island. Within the reefs that border that part of the coast, lies L'Eau (Water cove) where you anchor in 3 fathoms, upon a white bottom: there is good water and it is the watering place of the Providenciers. You will discover the entrance of the bay, by coasting along the reef, from the rounding in of the coast, after passing the west point of the three Maries, or Booby rocks. When you perceive a great extent of white water within the reef, you must send your boat to find the channel, and moor her in it, making use of your lead; and if you want to get in, be not afraid of coming near the reef. When you are once within the reef, you may let go your anchor in 3 fathoms: you may go further in by towing or turning with caution; the entrance is not more than half a league or two miles from the shore.

W. by S. of Booby rocks point, is the N. W. point of Providenciers key: and the reef terminates at this point, which you range on the west part within $\frac{1}{4}$ of a league. You may anchor off this coast in 8 or 10 fathoms, but you must range the shore pretty close, to be on the White Shoals, bringing a steep hummock, seen $\frac{1}{4}$ league inland, to bear S. W. then you will see the shoals recede a little from the shore, and afford a large space for the turning of the ship. Four miles south of the N. W. point begins a reef, which comes from the coast, running S. W. $\frac{1}{4}$ W. $2\frac{1}{4}$ leagues; this reef is terminated by a small sandy islot, almost under water, which bears S. W. from the New point of Providenciers key, at the distance of 3 leagues.

From this sandy islot the reef runs into the eastward, and afterward trenches out to join the north part, or the Little Cayco, which is surrounded with white shoals.

The Little Cayco bears S. W. $\frac{1}{4}$ S. from the N. W. point of Providenciers key, which is of a middling height, and of a white colour: you may range along the N. W. part, close to the edge of the white grounds; the west part is very bold to the south point, where you may anchor in from 5 to 7 fathoms, on the white bottom.

Mouchoir Quarre or the Square Handkerchief.

THIS shoal is very dangerous, and has much more extent than the charts generally give it. It bears S. E. $\frac{1}{4}$ E. true north of Sand key, one of the Turk's islands, distance 7 leagues. Upon the edge of the white ground to the W. S. W. of the Square Handkerchief, as far as the S. W. you will have from 11 to 14 fathoms. On the N. W. edge there is a key, on which you find but 8 or 10

feet. From this shoal the bottom runs E. by N. 7 leagues to a rocky spot, where the water breaks with great violence. It is natural to suppose that all this interval is full of sunken keys, which renders its approach very dangerous; on the S. and S. W. parts the grounds give warning, and you will find from 10 to 15 fathoms; however the best way is to bear up, and pass to leeward, unless being on the eastern edge, you perceive the end of the white grounds, and can weather them the next tack.

A ship entered, on the 3d of June, 1785, at 6 o'clock in the morning, the white grounds of the Square Handkerchief, on the S. W. edge, and found from 11 to 14 fathoms smooth coral bottom. Stood to the N. N. E. at 50 minutes after 7; sounded in 14 fathoms, saw ahead, and a little to windward, a bottom which appeared nearer the surface; she then bore up, but too late, for she was stranded on a key, in 9 feet water. This may show how dangerous it would be to run on these grounds. Close to the N. W. edge of this key, she could not get bottom in 40 fathoms. This key lies as follows, viz.

N. E. Point,	lat. 21° 20'	N. long. 70° 23' W.
S. E. do.	— 20 56 —	— 70 23 —
S. W. do.	— 20 53 —	— 70 56 —

Crooked Island Passage

IS the longest, but it is far the most convenient for ships coming out of the Bay of Gonaheeves, or from the southern part of St. Domingo, and for those which are bound to New-England. You commonly take your departure from Cape St. Nicholas, and being 2 leagues from the Cape, in the offing, you must steer N. by W. 23 leagues, to make the S. W. point of Great Heneaga; then sailing N. by W. 25 leagues, it will bring you two leagues to the westward of the point.

Great Heneaga, like all the islands which bound the passages, is very low, with small hummocks, which at a distance appear like detached islots. You will, in clear weather, see it at the distance of 5 or 6 leagues, but you need not fear coming within half a league on the west side. There is a fine bay, which is left on your starboard side, going through the Passage; there you anchor on the white bottom, choosing your ground by your eye, as in many parts of these white bottoms, you meet with stones, which sometimes rise to a considerable height above the level of the sand. You may get fresh water with little trouble, and in sufficient quantity for several ships.

When you are opposite the west point of Great Heneaga, two leagues off, you must steer N. N. W. 2 or 3° W. for 25 leagues, when you will make L'Islet au Chateau, (Castle Island,) which you may approach within 2 miles, or nearer without fear. If you should depart from Heneaga, in the evening, it would be better to steer N. W. $\frac{1}{4}$ N. for 17 leagues, to avoid the Hogsties; then to haul up, and make a good N. by W. course; when having run 8 leagues, you would be one league to the westward of Castle island.

The Hogsties are two small sandy islots, very low, and encompassed on the east side with a white shoal, which is surrounded with a reef extending $1\frac{1}{2}$ league. The west side of them is clear of dangers, and you might anchor off it in 7 and 5 fathoms, sand, having one of the islots bearing N. N. E. and the other east. They bear N. by W. true north, 13 leagues from the west point of Heneaga.

West of Castle island, $3\frac{1}{2}$ leagues distance, lies the Mira-por-ros: it is a shoal not unlike the Hogsties; on the west side, which is clear, is an indifferent anchorage: the east side is bold, and on the south-east side, at a mile distance, you will have from 20 to 25 fathoms, coral and rocky ground. As this shoal is to leeward, you do not often see it in ranging along Castle island; however, if it was necessary to turn, you might approach it within half a league; all the dangerous parts break; and the white ground will give you notice of it in good time.

You may if you choose, pass to leeward of the shoal; its extent east and west is about 2 miles, and north and south about 2 leagues.

When you are east and west of Castle island, you must steer N. or N. by W. $7\frac{1}{2}$ leagues, to make the west end of Fortune island, within a league of which you come in with this course and distance; you will continue in the same direction to make the western extreme of Crooked island, off which is a small island, called Passage islot; (Bird rock;) having run 6 leagues, you will be $1\frac{1}{2}$ league west of this islot, so that the direct course from Castle island to the end of the passage is N. 5° W. 14 leagues.

When you are come to this place you suppose yourself out of the passage; nevertheless, should the wind happen to be to the N. E. or E. N. E. you have to fear Watling island, which bears from Bird island N. 4° W. true north, 23 leagues; therefore to avoid it, you ought, in leaving the Passage, to keep as much to the eastward as the wind will permit; should the wind be at S. E. and you steer at N. E. you would make Samana island, (Atwood's key,) so that keeping the wind when you are out, you must observe not to steer higher to the eastward than N. E. nor more to leeward than N. by E. 5° N.

The islands of Acklin, of Fortune, and Crooked, are united together by a white ground, which surrounds them entirely. This ground does not extend in the W. side more than half a league, and forms in the bay W. of Acklin, an anchorage where the water is very smooth.

Fortune island does not offer any anchorage, and its N. W. side is covered by a reef, on which are some rocks under water, outside the white ground, which renders it very dangerous to approach.

Crooked island has an anchorage tolerably good, near the Bird rock, on the W. side. This island, with Fortune island, forms a deep bay, 4 leagues in depth, at the bottom of which is anchorage, near Five islots, which are at the extremity of a low point, belonging to Crooked island, and join the N. E. end of Fortune island; you let go your anchor in from 10 to 3 fathoms, W. N. W. of these islands, and nearer Crooked than Fortune island; the bottom is tolerably good. East of the low point of Crooked island and near the island is a watering place.

These islands are bordered by a reef on the N. and E. sides; they are low, with some hillocks, and a few trees and shrubs, which at a distance appear like groves and plantations. Their prospect is very agreeable at 3 or 4 leagues distance, but when you come near, you see nothing but prickly or creeping plants, to which this rocky and corally ground can scarcely afford nourishment. However, Crooked island is less barren than the rest, and produces a few shrubs.

The E. point of Crooked island has a reef which stretches out half a league to the eastward; and the point of Acklin Island, which is only about 2 miles from the other point, has likewise a reef running the same length to the N. E. observe that all the S. E. part of the island is bold and iron bound.

The island of Samana, or Atwood's key, is long from E. to W. and very narrow, from S. to N.; the E. point lies much more to the northward than the W. point; it is entirely surrounded with a white shoal, bordered by a reef; off the W. point the reef runs out one league, and under this point, in the extent of another league along the shore, there is no reef; here vessels might anchor in the white ground in 7 or 8 fathoms, but very close to the shore; off the edge of the white ground no soundings are to be had. To the E. true N. of the island, are two small islots $1\frac{1}{2}$ league from the shore, and surrounded with reefs and white shoals. The island is low, and offers the same appearance as the others do in this passage.

Watling island is low, and covered with a reef on the E. and S. sides. The S. E. point has a shoal without a reef, near half a league out; the W. side is safe and offers an anchorage on the white grounds, but always very close in, and not more than half a cable's length off. The N. W. part is covered by 2 or 3 white islots, encompassed with white shoals and reefs, which extend to the W. half a league and on the other side till they join the N. E. point.

You have no occasion to fear the currents in this Passage, if you have a fresh

breeze, they being then scarcely perceptible; but in calms and light winds, they may set you to the westward, but slowly and so feebly, that in a passage so short you ought not to mind them, especially as you generally make it with a large wind. Nevertheless, in the months of June, July, and August, when calms or light westerly winds are common, you experience currents setting to the W. strong enough to alter your course. This effect, which is only felt in this Passage, is occasioned by the vicinity of the extensive shoals forming the Channel of Bahama and those of Providence island. In this season it will be proper, if you have not wind sufficient to make you go more than two knots an hour, to allow a quarter of a mile an hour for the current setting to the westward; if you go three knots and upwards, this allowance will be unnecessary.

Description of the Islands of Bonair and Curassoa.

IF you come from the main, and are bound to Curassoa, I would advise you to endeavour to make the island of Bonair, and then to run down to Curassoa; but be sure not to come within 4 or 5 miles of the south side of the island, by reason of the rocks and foul ground, unless you are acquainted. There is a road on the west side of the island, which lies within a small islot, but it is a little difficult for strangers. Bonair has a governor; some few people from Curassoa live there, and a great many Indians; there are likewise several warehouses, where the Curassoa sloops load the cocoa, hides, tobacco, &c. that are fetched from the main; these goods are lodged here until they have a good market for them at Curassoa. The island of Bonair yields nothing but wood and salt, and has no fresh water; the west part is pretty high, and very rugged uneven land. From the west end of it you may see the island of Curassoa, in fair weather, which bears W. S. W. distant 15 leagues.

When bound to Curassoa you are to run down so as to come along the south side of it; if in the night, come not nearer the island than 3 leagues, on account of Little Curassoa; it is a low sandy island, very little above water, one fourth of a mile in length, with nothing but prickly bushes on it, so that you cannot possibly see it in the night; it lies S. E. from the east point of Curassoa, distant 2 leagues, and is steep too on every side.

Curassoa is a low island; the east side having no high land, except a mountain in the N. E. part, and another of great height, which makes like a table land in the S. E. part; on the west side there are some high hills; but all the rest of the island is lower than Barbadoes. The table land on the S. E. part bears W. N. W. from Little Curassoa distant 7 or 8 miles. You must give the east point of Curassoa a birth of half a mile, and then you may keep as nigh the island as you please, for it is steep too all along the south side.

The haven or harbour, called also Amsterdam, or St. Ann, is on the S. W. part of the island; there is a white buoy on a ledge that lies on the starboard, or south side of the harbour's mouth; that buoy you must leave on your starboard hand in going in, and haul close round it into the harbour, whose entrance is very narrow, and steep too on both sides. You must not let go an anchor in going in, but you are to have a hawser in your boat, ready to run to the south shore, or to some of the ships; for although the harbour's entrance is not broader than the length of a 70 gun ship, yet there are 60 fathoms water; but if the wind is large it is better to run up above the town, and above the shipping, then you may let go your anchor; it is there something broader, and clear of craft.

The town lies on the south side, and is called Amsterdam; but there are a great many buildings on the north side, as well as all over the island, which is populous. This is a very good harbour to heave down in, as there is neither sea nor swell. All manner of provisions are prodigiously scarce and dear here; for the island itself produces very little of any kind of necessaries. On the N. W. and N. sides, the island is foul a little way off, so that it is best to be on the south side, for this is all bold and clear. There is a fine cove about 5 or 6 miles to

the southward of the harbour, called by the Dutch, Spanish cove, but in the draughts St. Barber, and a large fort stands at the entrance of it.

The N. end of Curassoa lies in $12^{\circ} 24'$ lat. N. and long. $60^{\circ} 13'$ W. of London, and the west end of Bonair, in lat. $12^{\circ} 21'$ north. If you are bound to windward, I would advise you to beat up the south side of the island, and work up under the west end of Bonair before you reach over, for you have at most times a counter current, which runs to windward, and the west end of Bonair is clear and bold too; there is a small sandy bay on the W. N. W. part of the island, where you may anchor within half a mile of the shore; but don't come within two leagues of the south side of the island, for there low sandy keys lie a long way off, as well as some rocky reefs.

Directions for vessels bound to Trinidad.

In the rainy season, that commences commonly in the end of June, or beginning of July, a strong current sets out of the Bocca's del Drago, or Dragon's mouths, occasioned by the rivers and branches of the river Oronoco, that empty themselves into the Gulf of Paria. This, with a strong lee current and southerly wind that generally prevails the same season, occasions many vessels to fall very unexpectedly to leeward, an accident irretrievable by the fastest sailing vessel particularly in light winds. It is therefore advisable for vessels bound in that season to Trinidad, from the United States, to go to windward of Barbadoes, and make Trinidad. From thence steer S. S. W. or as high as the wind will permit, to get hold of the land of Trinidad, distant 6 or 7 leagues. The course along the north shore of Trinidad, is W. S. W. 15 leagues from the point of Gallera, or N. E. point of the island to the Bocca's.

If you have a moderate breeze you may enter the second Bocca's (being the safest, except the Grand Bocca's farther to the leeward) keeping the lee or westward shore on board, by which means you will carry in the breeze, and leave an eddy current when the stream is running out in the middle and on the eastward. If the wind is light, and the tide on ebb, we would advise the Great Bocca's, or Dragon's mouth, where you may come to, in good holding ground, with a light kedge, till the breeze or current favours.

When you are within the Bocca's and Gulf Paria, a short distance, you will open St. David's tower, above the town of Port of Spain clear of the south part of Gaspar Grande, about E. by N. distant 4 or 5 leagues. St. David's tower, or citadel, is of white stone, a conspicuous mark, in the interior of the fortifications, built by governor Picton, on Abercrombie heights. In sailing up, you will see the forts on Gaspar Grande and Point de Guard, for protection of the Carrenage and Chagaramus; and farther up, the shipping off the town.

THE ISLAND OF BARBADOES.

THE south point of Barbadoes lies in $13^{\circ} 01'$ lat. N. the middle in $13^{\circ} 11'$ and the north end, called High point, in $13^{\circ} 22'$. The east side of the island is reckoned $59^{\circ} 24'$ long. W. from London. In the latitude of Barbadoes about 70 or 80 leagues to the eastward, you will find the water discoloured and prodigiously thick, as if there were soundings, but there are none, and you may depend on being at the distance aforesaid of that island. Endeavour to keep in lat. $12^{\circ} 50'$, or betwixt that and 13° which will make you sure of the island: observe also there is near half a point east variation.

The island of Barbadoes, which lies out of the line, and to the windward of the Carribee islands, is of a moderate height and pretty level, save a few hills here and there, of an easy ascent; though originally quite overpread with wood, there is little now remaining, being mostly cut down to make room for sugar and other plantations. The island may be seen in clear weather, 10 or 11 leagues off, and at other times only 3 or 4 leagues. The east end is much lower than the other parts; but when coming from the eastward, and the north end of the island is bearing W. by N. and W. N. W. about 5 leagues from you, and the S. W. point

bears W. S. W. then the easternmost point of Barbadoes appears to be the highest land; from this east point to the southward, the land is even and declines towards the sea, but between the east and the north points it is uneven, rugged, and broken.

Always endeavour to be on the south side of the island, along which you may run within three miles of the shore, till you come to Needham's point, giving that point a quarter of a mile birth, and haul in for Carlisle bay; run into the bay till you bring Charles fort (on Needham's point) to bear S. E. by E. and the Steeple N. N. E. $\frac{1}{2}$ E. you will have 14 fathoms water.

At the bottom of this bay, (where there are very commodious wharves for the shipping and landing of goods,) stands Bridgetown, the principal town of Barbadoes.

The S. E. part of the island, from South point to Kitridge's point, is surrounded by a ledge of rocks, which are called by some Cobler's rocks from one of the most remarkable among them; they extend about a mile from the shore, and you must be careful not to fall in with them in the night. At South point, (called sometimes Oistin's point,) about 6 miles to windward of Needham's point, where the rocks end, is a flat spit, which must have a birth as it runs off W. S. W. and E. N. E. above one mile; in the day time you may see how far it stretches by the white water; when you are over that spit, haul up N. E. if you can, and at the head of the bay you will see a mill close by the water side; bring that mill either E. by N. or E. N. E. and anchor in 7, 8, 9, or 10 fathoms water; you will have tolerable good ground, but the bay is all over rocky, and this spot is the clearest part.

If you come into the leeward of the island there are some few rocks, which lie N. N. W. of Carlisle bay, some three quarters of a mile off, called Pelican shoals, and some half a mile from shore, called the Half Acre shoal. Just above the north point of Carlisle bay, about 9 miles to the north of that point, on the west coast, is Speight's town, a small place, before which vessels ride occasionally.

Like the other islands, this is subject to tornadoes and hurricanes, in the summer months, which are very terrible and dangerous to the shipping; for they have no harbours to shelter themselves in, but only bays where they lie at anchor; and in the principal one (Carlisle bay) there is no good anchoring ground, it being foul and apt to cut the cables.

THE ISLAND OF TOBAGO.

FROM Barbadoes to the north point of Tobago, the distance is 36 leagues; the course by compass is S. 35 leagues, which will bring you about 5 leagues to windward of the island. It is common with most pilots, to steer S. $\frac{1}{4}$ E. but with that course they are exposed, when in the latitude of Tobago, to be at least ten leagues to the eastward of it. As the land is pretty high, it may be seen at the distance of 15 leagues, or more, in clear weather, and you must always endeavour to get on the north side of the island; that side is bold and clear, till you get down about 9 miles from St. Giles' rocks, where there are several rocks above water, called The Sisters. They lie two miles from the shore, and are bold too. When abreast of these rocks you may see the west end of the island, which is low and sandy, and to the westward of them you may heave as near the shore as you please.

Tobago, like Barbadoes, lies out of the line, and to the windward of the Caribbee islands. The latitude of the N. E. end is $11^{\circ} 29'$ N. the longitude is $60^{\circ} 17'$ W. from London. It is not exposed to those dreadful hurricanes which are so destructive in the other islands.

If you make Tobago, towards the evening, and are afraid of running in with it, you must not by any means lay to, but stand to the southward, under an easy sail; otherwise the current, which always sets to the N. W. or N. E. will probably occasion your losing sight of the island; and if it should set to the N. W. would perhaps carry you so far to leeward, that you could not be able to fetch it again.

Though Tobago does not possess any harbours, properly so called, it has several good bays, which considering that from their southern latitude, they are never exposed to dangerous gales of winds, are equally convenient and secure to shipping.

In going to any of the bays to the leeward of the island, you may run as near to St. Giles' rocks, (on the north point,) as you choose, and, if going into Man of War bay, may borrow as near the north point of that bay as you please. Vessels sailing from the eastward for the south side of the island, must keep well to the southward, otherwise the current round Little Tobago, (which runs always to the N. W.) will sweep them all away to the northward. To the S. W. there is nothing to fear till you come to Courland bay, but what shows itself, except Chesterfield rock. This is a sunken rock, with 9 feet upon it, at low water. It lies above a half a mile from the shore, near the east point of Minister bay.

The currents near Tobago are very strong and uncertain, especially between that island and Trinidad. The north-east trade wind blows all the year round. At the full and change of the moon the sea rises four feet perpendicular.

DESCRIPTION OF THE SEVERAL BAYS OF TOBAGO.

MAN OF WAR BAY, on the north side, lies about 3 miles from St. Giles' rocks. You have no soundings till you are close up in the bay, and then from 40 to 10 fathoms, except a small spot towards the west, called the Cardinal, which is an exceeding good place for fishing. When bound to that bay you go to leeward of St. Giles' rocks: haul in for the bluff, or North point, and you will see the bay; open the key as near the bluff as you can, but take care the wind does not take you aback, for it is very fluttering under the high land. Turn into the bay which is all bold, even to the rocks; anchor as far to windward as you can. After you are shot in, you will see a little bay called Pyrat's bay; get as nigh that bay as you can, in 12, 14, 16, or 17 fathoms, all clear ground; if you cannot turn in, you may anchor in 35 or 40 fathoms, and warp up. In Pyrat's bay is the watering place, in the rainy season. On the south shore of Man of War bay you may anchor in 16 or 18 fathoms a quarter of a mile from the shore, and have good water, at all times, half a mile from the anchorage; but there is a great surf, which makes the watering hazardous.

About 6 leagues from Man of War bay, and 4 leagues S. W. from the Sisters, lies Guana point, or the north point of Courland bay. If you arrive in the night, and do not care to push for the bay, there is very good anchorage to windward of the bluff, from 6 to 20 fathoms, regular soundings; in the day there is no danger but the Beef-barrel, which breaks at low water, and is so near the shore that no prudent seaman will come nigh it. You come to an anchor, in the middle of the bay, between Guana point, and the rocky point, called the Hawk's bill, at the west part of the bay. You may anchor in 6 fathoms, but in 9 or 10 there is good fishing, either with the seine or with the hook and line. It is clear ground, only a few stumps of trees close up to the mouth of the river. If the wind hangs to the southward of the east, you will ride very rough, and if at N. E. you will roll very much. In this bay you have the common trade wind all day, and an off-shore breeze all night.

To the southward of Great Courland bay is Little Courland bay, that has very good anchorage within the windward point, which is very bold; there you may ride safe, and smoother than in the former.

Between Man of War bay and Courland bay, are the bays called Bloody bay, Paletuvier's bay, Englishman's bay, and Castara bay, which have safe anchorage for vessels of 150 tons.

At the south-west end of Tobago, is Sandy point bay; if you weigh from Great Courland bay, be sure of a breeze to carry you without the reef, called Bucco, for if it is calm, the current will set you down on this reef, whose northern end, which breaks and dries at low water, is about two miles from the shore; keep about two cable's length from the breakers, and it is perfectly safe.

To enter Sandy point bay, haul close round the reef, and having passed the point, anchor at the bottom, in six fathoms.

Between Little Tobago and the great island, 4 miles from St. Giles' rocks, is Tyrrel's bay for ships of 150 tons.

Three miles and a half from this, and on the south side of the island, lies King's bay, with good anchorage any where, within the windward point from 6 to 20 fathoms. In the day time, the high land on this point intercepts the trade wind, and the swell from the eastward is apt to set a vessel down to the leeward point, which projects farther to the southward; therefore the best time to sail out is early in the morning, about day-break, when the wind blows fresh off the land to the northward.

Queen's bay adjoining to King's bay, on the west side, has very safe anchorage, within about $1\frac{1}{2}$ cable's length from the shore. Give the island off the point a good birth to windward, but if you can procure a pilot, it will be proper to have one.

Halifax bay, about one league to leeward, is a very safe snug bay for vessels of 250 tons, but there is a shoal in the middle of the entrance, that makes a pilot necessary.

Barbadoes bay lies 5 miles S. W. of Halifax bay. In running down the south side, to avoid Great river shoal, keep the east end of Little Tobago open with Smith's island, until the latter bears N. W. when you may luff up for the bay, but you must be careful to avoid a reef of coral rocks which runs out from Granby point, about a cable's length. When you are within the reef you have very good anchorage in from 12 to 7 fathoms, and the best mark for it, is to bring the Silk Cotton tree on the beach, in one with the flag staff on the hill.

Rocky bay $5\frac{1}{2}$ miles W. from Barbadoes bay, is a safe deep bay, where a vessel may anchor from 15 to 7 fathoms water, and no danger in standing in boldly. In running down this bay, care must be taken of Chesterfield rock, mentioned in page 287.

Heavy laden vessels, not calculated for beating we would advise to run down in lat. $10^{\circ} 10' N.$ make the S. E. point of the island, run down the south side, and enter the Gulf of Paria by the Serpent's mouth. There are no dangers in running down this channel, and you will have from 12 to 5 fathoms through, keeping the land of Trinidad nearest on board. In entering the Gulf, keep as close as possible to Point de los Gallo, or Cock's point, to avoid the Soldier Keys. When in, luff up. Port of Spain town lies N. E. distant 12 leagues. In running for the S. E. point and south side, you will have soundings before you make the land. Should night come on you may anchor in the channel.

On the N. side of the island of Trinidad is a narrow ridge of high mountains, running the whole length from E. to W. the other parts are moderately low, except on the south side, where there are several hills.

Remarks for Sailing into the River Demerari.

At the entrance of the River Demerari, an E. N. E. and W. S. W. moon makes full sea, and the water at the highest spring tide does not rise more than 8 or 9 feet perpendicular. From each point of the river runs off a flat mud bank, at least 3 leagues into the sea, on many parts of which there are not more than from 8 to 12 feet water, at high water. Between these banks lie the entrance and bar of the river, on which at the highest spring tides, there are not more than 20 feet water, but all very soft ground. If the wind should cast out, be very cautious, and not stand too near the west bank, as the flood tide sets on it in an oblique direction, and the ground in some parts is hard sand: but you may borrow on the east bank at pleasure, being all soft mud, and you receive no hurt by touching the ground.

About six miles up on the west side of the river, stands a remarkable lofty tree

by itself, the branches of which appear to be withered, and 3 or 4 miles above that, there is a tuft of trees or bush, which is very remarkable.

In running into the river, the leading mark is to keep the withered tree on the westernmost part of the tuft or bush, which will carry you in the best water and about midchannel, steering at the same time S. by W. by compass. The breadth of the channel going in, is about two miles: shoaling gradually on each side. The best anchoring ground is within the east point, in 4 fathoms at low water; soft mud, keeping the eastern shore on board, the western side being flat and shoal; it is necessary to weigh the anchors once every 10 days, or they will bury so much as to be supposed to be lost.

N. B. The thwart mark to know when you are without the bar is when Point Spirit comes open to the northward of Corrobana Point, and you have 4 fathoms water.

Observations and Remarks on the Coast of Guyana.

Ships bound from the Leeward or Carribee Islands, to the Coast of Guyana, should steer as far to the eastward as S. E. if the wind will permit, on account of a strong indraught or current, setting all times of the year to the westward, through the Gulf of Paria. The moment you come on the eastward edge of the ground, you will perceive the colour of the water change to a light green, and will have from 35 to 45 fathoms. If in that depth you should be so far to the southward as $7^{\circ} 25'$ or $7^{\circ} 30'$ N. latitude, you may steer in S. W. and make the land; but if more to the northward, keep your wind till you attain that latitude. You will have very gradual soundings quite to shore, but very shallow; you will be in 9 fathoms when you first get sight of the land about Demarari; but you may run in without fear in 4 fathoms, being attentive to your lead. As it is the general opinion, that there are many unexplored sand-banks on this coast, a great attention to the lead, and quality of the ground, will be necessary, as by that only you will be apprized of the danger, for on most parts of this coast to the eastward of the river Orinoko, the bottom is very soft mud: if on a sudden you find hard sandy ground, be assured some danger is near, and immediately haul off, till you again find soft ground as before.

The making of the land all the way from Orinoko, as far to the eastward as Cayenne is very low and woody, and therefore appears in all parts so much alike, that the most experienced pilots are frequently deceived; your chief dependance therefore, is in a true altitude: if that, by reason of thick weather, cannot be obtained, it will be advisable to anchor in about six fathoms, which you may do with great safety, having good ground, and in general moderate gales and smooth water.

The making of the land about Demarari, is the most remarkable of any part of the coast; the woods in many places being burnt down and cleared for cultivation, makes the land appear in large gaps, where the houses, &c. are plainly to be seen, and if there are any ships lying at the lower part of the river their mast-heads may be plainly seen above the trees at some distance at sea.

If bound into Demarari, you must run to the westward till you bring the entrance of the river S. S. W. or S. by W. and either lay too or anchor on the tide, in four fathoms water: but be very cautious not to be hauled farther to the westward than these bearings, for the flood runs very strong into the river Isequibo; at the mouth of which, and at a great distance from the land, lie many very dangerous sand banks, on some of which there is not more than 9 or 10 feet water, and the flood tide sets right on them.

On many parts of this coast, particularly off Point Spirit to the eastward of Demarari, the flood tide sets right on the shore, and the ebb right off to the N. E. It will be advisable, when calm and near the land, to anchor there.

In the month of December there is, at times, particularly in shoal water, on the coming in of the flood, a great sea, called the *Kollers*, and by the Indians *Pararoca*. It is often fatal to vessels at anchor. The early navigators have

been puzzled to assign a cause for this phenomenon, which is occasioned by the northern winds blowing on the shoal water.

Astronomical Observations on the Coast of Guyana.

	Lat.	Long.		Lat.	Long.
Margarita (W. P.)	11 02 N.	64 23 W.	Dragon's Mouth	10 41 N.	61 48 W.
(E. P.)	11 00	63 50	Riv. Guarapiche ent.	10 12	62 43
I. Cuaga or Pearl I.	10 49	64 14	Point Morro	9 54	61 58
Friars I.	11 14	63 48	Oronoko River	8 25	60 26
I. Sola	11 20	63 38	Cape Barma	8 26	60 08
Testigos I.	11 24	63 09	Essequibo River	7 00	58 20
River Orquilla ent.	10 08	65 32	DEMARARI river entrance.		
New Barcelona	10 08	64 46	Corrobana Point	6 48	57 55
I. Boracho	10 20	64 48	River Berbice ent.	6 25	57 11
Sante Fe	10 16	64 31	SURINAM River ent.	5 58	55 15
Cumana	10 27	64 15	Paramaribo	5 49	55 15
Araya	10 35	64 20	River Marowyne ent.	5 55	53 52
Morro Chocopata	10 42	63 54	CAYENNE	4 56	52 15
Escondido or Hidden port	10 41	63 27	Oyapock River, St. Louis	3 55	51 37
Cape Molopasqua	10 42	63 04	Cape Orange	4 18	51 20
Cape Three Points	10 46	62 44	R. Cassipour ent.	3 54	51 10
Point Galera	10 45	62 33	Cape North	1 48	50 10
Point Pena or Selina	10 44	61 53	Mouth of R. Amazon	0 18	50 40

[See Chart of this Coast, published by the Author, in which the Rivers are on a large scale.]

REMARKS.

D'Espagne Bay, or Spanish Bay, Gulf of Paria.

Lately given by a Commander.

P. M. Light winds and cloudy : half past 2 came to with the best bower in 9 fathoms, veered to $\frac{1}{3}$ of a cable, latitude 10 deg. 39 min. N. longitude per middle set (mean 3) lunar observations 61 deg. 54 min. W. when the ship's head was N. E. by N. which was the way the nearest land bore, a long mile off. The Fortified Island, forming the west side of the bay, bore W. by N. $\frac{1}{2}$ N. A white half-moon battery, just above the town on the brow of the hill, which is a good mark for this bay, as it may be seen a long way off it, bore E. N. E. about 5 or 6 miles. This battery, by large ships when working in, should never be brought to the northward of N N. E. and the best anchoring is in the N. W. bight of the bay, perhaps, to have anchorage, this is the most spacious safe bay in the world; for here is a superficial space, I am sure I speak without bounds, when I say of 72 miles, where ships may anchor; and, if the wind blows from any point into the bay so as to embay them (which is a rare thing) and only happens in the hurricane season; but hurricanes are not known here; if ships drive from their anchors, which are in good holding ground, they go on shore in soft mud, and are got off without damage. The depth of water throughout this spacious bay, is from 12 to 5 fathoms in the least depth we lay, and only one mile off shore.

Directions for sailing up the Surinam River to Paramaribo.

It is advisable for ships coming from the eastward, or long voyages, to get into their lat. 5 $\frac{1}{2}$ 55' N. lon. 50° W. (except they have a time-keeper or lunar observation that may be depended upon) as by that means they will have

an opportunity, from observation to observation, of ascertaining the current, which almost constantly, off the Maroni, runs to the N. W. and you are also to observe that during the rainy season, you cannot depend always on a meridional observation.

When you have got ground in the above latitude (and be sure to sound in time) 60 to 40 fathoms fine sand, you are about 30 leagues to eastward of the Maroni shoals, and you must not, *in the night*, approach nearer to them than 10 fathoms, when the soundings will be gradually coarser: In hauling to the northward, you will have deeper water and finer sand; and in 10 fathoms water, heaving to, with your head to the northward, you will drive clear enough of the shoals to the N. W. You will always know whether you are to the eastward, and consequently to the windward, by those soundings; for the ground six leagues to leeward of the Maroni, all the way to Bram's Point, is soft mud. Your best land-fall will be between Port Orange and the Maroni, indeed it is absolutely necessary you should make the lands thereabouts. The Maroni is known by the only high land near this coast, and appears, when you make it, a great distance inland, and bringing it to bear south of you, are clear of its shoals, you had better then stand in until you are in 8 fathoms water.

In making Port Orange, which has been often mistaken for Bram's Point, and which error has occasioned the loss of many ships, observe there are many large white houses, which are barracks; and in the middle of them, appears a large tree which, when bearing south of you, makes like a ship with top-gallant steering sails set; and the flag staff also appears among the trees, and those trees show to be near the houses, whereas Bram's Point has only two large houses, and the trees are on the other side of the river.

You will then keep on the edge of the Mud Bank in from 3 to $2\frac{1}{2}$ fathoms, or as near as your draught of water will permit; and you need be under no apprehension in steering along the coast, as, if you touch, the mud is very soft, and on the Mud Bank, the moment you haul to the northward, you deepen your water; for on the whole of this bank it deepens gradually from 2 to $3\frac{1}{2}$ fathoms, and then you are on the outward edge of it.

The next mark you have (for you must be very attentive in keeping a good look out) is a break in the land, which has been cleared for a plantation, with two houses; the trees on each side having been burnt, appears very brown, and in making it in 3 fathoms water, 4 leagues off, you are from 3 to 4 leagues to the eastward of Bram's Point, which forms the eastern entrance of the Surinam River. If it be evening, or ebb tide, you had better haul to the northward, and must anchor when you have 4 fathoms water, as the current would, during the night, drift you (should you lay to) as far to the westward as the Saramaca, and many ships have been three to four weeks beating back to Bram's point, although the distance is only 7 leagues. Nay, heavy sailers, after beating many weeks, have bore up for Berbice, finding it impossible to contend against wind and current.

In approaching Bram's Point, which is easily known from any other port on the coast, (as it is the only point after the Maroni,) and is known by two flag-staffs. Observe, the eastern staff is for signals, and the western the colours are hoisted, and at a distance appear to be almost in the water. You will on the flood, when it bears S. S. E. haul in, keeping the point open on the larboard bow; steering thus, you will clear the shoal that runs out to the northward of it, and you are in the fair channel way, and may go within hail, when there is good anchorage in 4 fathoms water, observing the best anchorage is within the point, half a mile; (the course up the river from its entrance to Fort Amsterdam, is S. E.) on getting within the point, keep the eastern shore on board, as then, all the way up, until you reach Paramaribo, is the deepest water. About 3 miles within the point, you have only 2 fathoms at low water, and from thence to within 2 miles of the entrance of the Camawina, may not be improperly termed the lower bar; it extends about 3 miles.

In approaching close to Bram's Point, from the sea, you may naturally, if a stranger, apprehend danger from several wrecks that lay on the point, but these are old vessels that have been brought from Paramaribo, and placed there as

break waters, as at some seasons the sea breaks upon the point. In war time, and if an armed ship, you must anchor at the point, as a pass is necessary from the governor at Paramaribo.

Having reached near to the entrance of the Camawina, which branches from the Surinam, you must be very particular in guarding against the flood, which sets strong into the Camawina, which, without great precaution, would set you on a spit of sand which runs from Fort Amsterdam, almost across the Camawina. On the other hand, you must guard against some sunken wrecks, which lay a little below the Fort Amsterdam, on the W. shore, so as to keep between the two. Having passed the flag-staff, you will have 18 feet at low water, and from thence to the edge of the bar, the deepest water in the river. It is here ships complete their lading, who draw too much water to come over the bar. At Tyger's Hole there being 6 fathoms water, which is just above governor Frederica's Plantation, called Voorburg; you will then have a leading wind up, and by keeping three quarters over to the eastern shore, you will have the deepest water, 11 feet at low water, and 18 at high water; you will anchor abreast of Paramaribo, 4 fathoms, observing the deepest water is close to the town.

I shall conclude by these general descriptions: that you will be near, and to windward of the Maroni, with coarse ground, that hauling to the northward, the ground will gradually become finer, and the water deeper; and to leeward of the shoals, a sandy coast and ooze. That it is necessary to keep on the edge of the bank in from $2\frac{1}{2}$ to 3 fathoms, and in the rainy season, rather anchor too soon; or if you are the least doubtful, or should you sail even a few leagues to leeward even in a fast sailing vessel, you would have much difficulty and length of time in turning back: and that in observing these precautions you cannot fail to make the land properly.

It is high water at full and change, at Bram's Point, at six o'clock: the flood sets to the westward; ebb to the eastward.

River Amazon.

You get soundings, coming in from sea, 30 or 40 leagues from land, from 30 to 60 fathoms water; if you are opposite the mouth of the river or to the westward of it, you will have mud and the water much discoloured, particularly in the months of July, August, and September. If you have fine sand, or sand and shells, or coarse sand, you may depend you are to the eastward of the mouth of the river, and the water, though much discoloured, has a different appearance. If you find your soundings mud, haul up to the eastward as much as you can. Opposite the Bay of Salinas, where you take a pilot, the soundings are coarse sand and shells. In running along the coast, when to the eastward of the entrance of the river, at 3 or 4 leagues distance, you have various soundings; from the Baxo de St. Joao (which is about 50 leagues S. eastward of Salinas) to the Baxo de Gurnpi, you will have from 20 to 6 fathoms, but in general 7, 8, and 9 fathoms; from the Baxo de Gurnpi, to Salinas, 10, 11, and 12 fathoms; all these soundings sand of different kinds, sometimes fine white and yellow, sometimes the same kind of sand, with small black specks, sometimes coarse sand like bran. The course from the Baxo de St. Joao to the Baxo de Gurnpi, is about N. W. by W.; if you run in the night, come no nearer than 8 fathoms. From the Baxo de Gurnpi to Salinas, the course is W. N. W. to carry you clear. The Bay of Salinas, where you take a pilot for Para, lies in the lat. $00^{\circ} 36' S.$ You must not anchor in less than 6 fathoms at low water; bring the village of Salinas to bear S. E. by S. 3 leagues distant; high water full and change about 8 o'clock 30 minutes. The village of Salinas is situated on the west side of the East Point, which forms the bay, and in coming along shore from the eastward, you do not get sight of it till it bears about S. by E.; there is no other village in any of the bays in the neighbourhood; it is good holding ground, but a heavy swell from seaward. In the middle of the village is a building which appears like a church,

on which, if they hoist the colours in the day, or make two fires at night, you may be certain the pilot is there; when they make but one fire, there is a pilot, but he has no boat to bring him off; when they make no fire and hoist no colours, there is no pilot there; both of them (for there are but two) are absent at Para. The tide rises at the Springs about $3\frac{1}{2}$ or 4 fathoms.

From Maranhao to Salinas.

You must pass to the northward of the Croix grande, which lies in latitude $2^{\circ} 10'$ S. and give it a birth of 2 or 3 leagues. The bank of Manuel Louize, which has not been long discovered and is very dangerous, lies in the latitude $1^{\circ} 16'$ S. it is never dry nor does the sea break much upon it, except at low water; you pass to the northward of it about 5 leagues; it is about 15 leagues from the land. From the bank of Manuel Louize to the bank of St. Joao you have 10 to 12 fathoms, passing 5 leagues to the northward of Manuel Louize and keep in 17 fathoms water, you have nothing to fear as far as Salinas, for which directions have been given. Between Salinas Bay and Point Tijoca, (which is the East Point of the River Amazon,) and lies in $00^{\circ} 28'$ S. there are several bays. In the bay of Mara Cana, you may anchor in 7 or 8 fathoms, but must not come near the island, as it is very dangerous. At Point Matras de Maraponi you must not come nearer than 3 leagues, nor anchor the point bearing south, as it is foul ground. At the point of Piracaembana there is a large sandy bay, where you may anchor in 9 fathoms, soft white sand. In the bay of Cajatuba, you may anchor in 12 fathoms; you must not come nearer in; you will then be about 3 leagues from the land. The point of Curusa is round and some red spots; you may anchor on the east side of the point, in 17 or 18 fathoms, white sand, at about 3 leagues from the land.

From Point Tijoca there are two banks, bearing north from the point; the outer bank, which is called the Baxo de Fora is 6 or 7 leagues from the land, the inner one called the Baxo de Dentro, extends nearly from the point to within 3 or 4 miles of the outer bank; there is a good channel between them with from 10 to 13 fathoms water. There is likewise a channel between the Baxo de Dentro and Point Tijoca, but it is very intricate, and by no means attempt to pass it, being only frequented by small craft. As soon as you are through the channel between the banks, you will have 7, 8, and 9 fathoms, except you get to the westward on the bank of St. Joao, which is towards the western shore, where you have 3 fathoms at low water, spring tides: on this bank the sea does not break, it is soft mud, and good anchoring on it. The water is smooth, which is not the case in the channel of the river where there is a greater depth of water. The Baxo de Fora and the Baxo de Dentro are hard sand, and when there is a fresh breeze the sea breaks very much on them; when the water is smooth they are very dangerous, and are steep too. I have passed within $\frac{1}{4}$ of a mile to the westward of them in 9 fathoms at low water: spring tides there are not more than 2 or 3 feet water on them. When you are at the east entrance of the channel between the Baxo de Fora and the Baxo de Dentro, you have all the points open to the eastward, and when through, Point de Tijoca bears S. E. by E. and the islands of St. Caetano, S.; you may then steer S. W. by S. and S. S. W. which is a good course till you are a considerable distance, 9 or 10 leagues up the river, and will carry you clear of all the banks, which lie off the islands St. Caetano, and a bank of hard sand, which lies off the Point Vigia at about $1\frac{1}{2}$ or 2 miles from the shore.

The longitude of this coast has generally been laid down too far to the westward. You should endeavour to make the land to the eastward of Point Tijoca, which lies about $47^{\circ} 45'$ W. of Greenwich. If you make Cape North, it will take you a considerable time to beat up, and, unless you have a very good vessel, you cannot do it at all. Cape North lies in long. $50^{\circ} 10'$ W. Suppose you make the land to the eastward of Point Tijoca and are resolved

to run up the river without a pilot, the best way is if you are pretty near the land to steer N. W. to get an offing to go the northward and westward of all the banks; then steer W. N. W. or W. keeping the land in sight from the mast head. From the Bay of Salinas to Point Tijoca the distance is about 10 leagues. Keep this course, and if you see nothing of the breakers on the banks at the entrance of the river, haul up W. and W. S. W. till you make the Island of Maraja, which is on the west side of the river; when you make this island, bear up S. and S. S. E. and haul up for the east side of the river, which you will make in about two hours; then steer between S. and S. W. by S. observing not to come too near the eastern shore till you are certain of being above the Point Vigia, as there are several sand banks off the islands of St. Caetano. Point Vigia is about eight leagues from Point Tijoca. The course up the river to Para, after passing the islands St. Caetano, and have got the eastern shore pretty close, (say 2 or 3 miles) is S. W. by S. and S. S. W. You leave all the small islands on your larboard side, till you get up near Mosqueira, which is about 16 leagues up the river, and above Bahia do Sol, when you leave the other islands to starboard. If you come up the river in the night, be careful not to steer to the eastward of south, or you may get into the Bahia do Sol, which is very dangerous, being full of rocks and shoals. At Para it is high water at 12 o'clock full and change, the tide rises from 3 to 4 fathoms. There is a fort about three leagues below the city, on a small island, where you are obliged to anchor and send your boat ashore, and wait till you get permission to go up to Para.

Directions for River Para.

Vessels bound from Maranham to the Rivers Para and Amazon, should avail themselves of the morning's tide, anchoring at Araaji, and thence standing out to seaward in 15, 16, 18, and 20 fathoms water; this flat or shallow continues stretching north-westerly to the distance of 20 or 22 leagues. There is no danger whatever in your course; but as soon as you deepen your water and lose your soundings, you will find yourself abreast of the island of St. Joao; throughout this space the shores are low, with a few scattered sandy hillocks; there are some few openings or bays in your passage, as the bays of Cuma and Corimata, from both of which are shoals that stretch miles into the sea. North-west of Corimata is Mocamambabe, and a little further Cabella de Velhas; from which the coast is covered with a short heath or brushwood, which having passed, you approach Carsapocira Bay, filled with breakers. From hence N. W. lies St. Joao's Island; the land is level and low, and off the N. E. point of the island is good anchorage in 6 and 7 fathoms, and water may be had of good quality. On its west side is a river called Turivana, or bay of Turivasso, capable of admitting large vessels and formerly much frequented; from hence to the Gurapi Mountain, which stands inland, is high and has a smaller and rounder hillock near it, is about 70 miles, having several rivers or bays, viz. the Bays of Malaerca, Carara, Maracasume, Pirocava, Tiromabhuba, Caraiba, and Caraibamesim; these two latter join each other, and are sometimes called the sisters. Gurapi Point is low, level, and sandy covered with a dark brushwood, and having a reef running into the sea, over which the waters break. From Point Gurapi, the coast stretches westerly, but indented with various openings and bays. It is advisable to keep clear of this part, it being in some places shoal water, but when you are at the distance of 9 or 10 miles, the bottom will be found clear and even, with 7, 8, 9, and 10 fathoms. The bays between Gurapi and Caite, are Perealuma and Preatinga, adjoining it Toque, Embque, Giranunga, Senamboca, Panea, and Maniguituba, you will then arrive at Caite, which will be known by some lofty manques Islands, while the coast at their feet appears white and sandy. In coming from sea, and when you are just to the southward of the equator, and in longitude 46° 6' W. of Greenwich, you will observe your water discoloured, and soon after the land westward of Caite appearing like

breakers ahead. The coast from Caite bay to Maracuno runs northwesterly, and is distant about 13 leagues; you should keep about 2 leagues from shore in sailing along, where your passage will be without danger, and your soundings from 7 to 9 fathoms, and you will pass the following inlets or bays: Cotiperu and Mériquiui, you will then see the high point called Mount Pirousu, having red cliffs on its eastern part. Adjoining to this is Perimerim bay, the Guarapipo, and Virianduba or the Salt Ponds; here you will notice several spots or patches of white sand, on which the sea breaks, and at the western extremity of these is a watch tower, from which a signal gun is fired on the approach of any vessel. By keeping a good look out when you arrive at this part of the coast, you will readily perceive the smoke if you should not hear the report. This point, called Point de Atasia, has two white cliffs upon it, and on rounding it, you will enter the bay of Maracuno, in 5 and 6 fathoms water. Eighteen miles west of Maracuno is Point Tagioca, the eastern land at the entrance of the river Para. From Point Tagioca to Point Tapua, the course is S. W. by W. but some shoals, called Baxo de Boroneo, spread northwesterly between them, you will therefore give these points a wide berth of 6 or 7 miles, at which distance, there is a channel used by small vessels, but larger vessels must keep further out, at the distance of 10 or 11 miles from Point Tagioca; they will there have 12, 11, 15, and 10 fathoms, and between these two channels the ground is foul, but without danger. About 14 miles due north from the point are Tagioca shoals, which extend 8 or 9 miles northward, and are about 6 miles in breadth from E. to W. Over these shoals the water breaks constantly. Vessels leaving Maracuna, or coming from seaward and bound to Para, should steer directly off these shoals, passing within 3 or even 2 miles of them, and having the river open, stand up the channel a S. S. W. keeping nearer the Para side than that of Cape Majoury, the latter having considerable banks of sands almost all the way to Para. At the entrance, and opposite to Point Tagioca the distance from shore to shore is 9 leagues, but narrows as you proceed; should night come on, you will do well to anchor, taking care to give the land of Juanes a good berth, on account of the flats before mentioned, and when you weigh in the morning, let it be at low water. The land on the Para side is low, level, and dark, and filled with manques, which at a distance appears like vessels at anchor, and when you arrive at the termination of these, you will perceive two small hillocks of white sand, and further on, some reddish cliffs, upon which some huts are erected. Having sailed on about a league from these, you will see the point or entrance to the Bahia de Sol: go not too near, as it is in some places shallow, but should you find your water decreasing too much, stand immediately toward the Juanes shore, and your soundings will deepen. Continuing your course, you will approach Point do Mosquito, between which and the narrow Island Totuack is the entrance to the Bahia de Antonio; the passage is about $1\frac{1}{2}$ mile broad, and has 7 fathoms mid-channel: the ebb tide here sets very strong. Having passed the southern point or Point do Pinheiro, you will see the city of Bebin, or Para; continue your course south, passing to the westward of the islands of Reiquites and Oncas, the latter having a fort upon it, and anchor opposite to the city, in 3, 4, or 5 fathoms water. Vessels leaving this river, and taking their departure from point Tapua, should steer agreeable to the tide, keeping that point S. E. until you are distant from it 15 or 16 miles; Cape Magoary will then be in sight: haul up N. E. or N. N. E. taking care to avoid the shoals of St. Rosa. The winds are generally from the eastward, and blow in squalls. The beginning of the flood sets from the eastward very rapid, and veers gradually to the northeast and north; the rise of water is 10 feet. In thick weather, when Cape Magoary cannot be seen, you may discover your approach to the banks of St. Rosa by the soundings becoming irregular, which is not the case to the eastward of the channel. Keep the weather shoals on board as much as possible. Whoever is bound to Maranhao or Para, should make the land in the months from December to July, because high winds seldom prevail. The shores then appear clear and bright; but from July to November, a constant fog envelopes the land, and the higher the tempests, the thicker and more hazy the atmosphere appears. The winds prevailing on this

coast, are the N. E.—E. N. E. and E. which are all fair for going in or out of Maranham and Para. Throughout the coast you may anchor 2 or 3 leagues from the land, but it is not advisable to go into less than 8 fathoms water. The tides rise 3 and $3\frac{1}{2}$ fathoms, and it is high water at four o'clock, full and change.

Directions for the Mouth of the River La Plata.

Cape St. Mary lies in $34^{\circ} 57'$ S. lat. and in $54^{\circ} 47'$ W. long. from Greenwich. Ships generally make the land with N. or N. E. winds, therefore it is better to keep to the N. until you get soundings, as the current sets to the S. W. Being in its latitude, and having got round in 25 or 30 fathoms fine sand and shells, you may reckon yourself about 20 leagues from the shore; with from 15 to 20 fathoms sand and clay, you are not far off shore. If it is clear weather you may stand in boldly even in the night, and in the day, when clear, Cape St. Mary may be seen 10 or 12 leagues off, the ship being then in 15 fathoms. When you have not seen the land before night, be sure to keep to the N. of the Cape by your dead reckoning, to allow for the current which sets to the southward. When you get soundings in 25 or 30 fathoms fine sand and shells, steer S. W. until you have 16 fathoms with sand; then if you judge yourself as far north as Cape St. Mary, steer S. S. W. until you get into the island of Lobos, which you will know, by having sand and clay. Running this S. S. westward if you are set to the westward, you will deepen the water to 20 fathoms; but if you are set to the southward, you will continue in 16 fathoms. Between Cape St. Mary and point Castillos the water decreases very suddenly.

When you have got into the parallel of Lobos, you may steer W. which course will carry you to the south of it, being in from 18 to 22 fathoms soft clay.

By keeping in not less than 18 fathoms, you keep to the south of Lobos; and by taking care not to have more than 22 fathoms, you clear the English bank to the north of it. From the island of Lobos to the island of Flores, the course is N. $83^{\circ} 15'$ W. $19\frac{1}{2}$ leagues. You will have from 17 to 7 fathoms near Flores.

Soft clay is a proof of your being in the channel—and mixed with small stones and shells is a proof of your being in the parallel of the English bank, and fine brown sand mixed with mud or clay is a proof of your being to the south of the English bank.

When you are near Flores the depth is nearly the same to the northward as to the southward of it, but the bottom is firmer to the north; so when you find the bottom firmer steer a little more to the south, till you get into soft ground. If you get to the south of the channel near the English bank, the ground is hard, and less water; in this case steer more to the northward, until you get soft bottom; and in either case continue your westerly course as before.

For Monte Video.

Between the English bank and the Island of Flores, you may run W. by N. $\frac{1}{2}$ N. 7 or 8 leagues, and then bring to, till see the entrance of the harbour, then you run in mid-channel and anchor in any clear birth, 15 feet at low water and 18 at high. Ships drawing more than 18 feet must anchor further out in 4 or 5 fathoms. It will be necessary to cast one anchor to the S. E. one to the S. W. also, and one to northward, which take in abaft to be ready for the first south wind.

There are no regular tides in the harbour—they are entirely governed by the winds.

If you wish to anchor near the island of Lobos, anchor to the south of it, as the ground near is too loose to hold.

To sail to the south of the English Bank.

Being in latitude $35^{\circ} 30'$ S. steer west until you have 8 or 10 fathoms clay, then if Cape St. Antonio or Point St. Pedras are not in sight from the mast head,

steer north until you get into the lat. $35^{\circ} 15'$ when you will have 5 or 6 fathoms sand mixed with shells, you may then be sure of being due south of Monte Video. The guide for the English bank by sounding is five fathoms sand and stones.

When admitted to anchor, as the current may set you to the Ortiz bank, there are no dangers to the south of the English bank.

In case of observing signs of bad weather, particularly to the N. run to the S. as the north wind in bad weather generally veers to the S.

The Ortiz bank lies in the latitude of $35^{\circ} 1'$. Ships passing between the Ortiz and the S. shore, have only to keep the land in sight to clear the bank. On the Checo bank, the smallest of the Ortiz, and most southern, there is the wreck of an English vessel, the mast of which serves as a beacon. There is a good passage between the Ortiz bank and Checo with nothing less than four fathoms, the Ortiz side is the deepest.

You will carry $5\frac{1}{2}$, $5\frac{3}{4}$ and 4 fathoms in the channel (mud) and shoal gradually to either side; the passage 4 or 6 miles broad.—There is a good harbour at Eusenada, about 8 leagues below Buenos Ayres. And at the latter place ships must anchor in the outer roads, and send a boat to the town for a pilot, as the entrance is difficult.

REMARKS.

In a north wind the river generally falls a fathom, and in a south it rises a fathom.

The currents are governed entirely by the winds, and frequently continue some hours after a heavy blow.

The mount to W. of Cape St. Mary may be seen in 18 fathoms.

Between Cape St. Mary and Cape Castillos there are three bays and three points, the plainest of which is Cape St. Mary, lying in

	Lat.	S.	Long.	W.
Cape of St. Mary, - - - - -	34°	$40' 20''$	54°	$6' 30''$
Lobos, - - - - -	35	$31 0$	54	$40 30$
Flores, - - - - -	34	$58 30$	55	$50 30$
N. Point of English bank, - - - - -	35	$10 00$	55	$50 30$
Town of Monte Video, - - - - -	34	$54 48$	55	$9 15$
Isle of Garrite, - - - - -	33	$55 15$	54	$45 50$

Rio Grande.

WE will now return to Cape St. Roque, and follow the coast as it trenches southerly, first observing that every navigator should be attentive to the time of year he makes the Brazils, there being a kind of monsoon or trade wind blowing from the N. E. and E. N. E. with a current setting south, from the month of September to March; while from March to August, the winds are from the S. E.—E. S. E. and S. S. E. the current then setting north: according therefore, to these seasons, he should run into a higher or lower latitude than the port he is bound to. From Cape St. Roque to Cape St. Augustine, the land may be approached by soundings of moderate depth, and gradually lessening as you approach the shore. Above 30 miles south of St. Roque, is the Rio Grande or Indian Potengi, a rapid river, having a rocky reef stretching from its northern point, sometimes covered; and a flat rock off its southern point, upon which the Fort dos Keys Magos is erected, from which a reef also extends to the sea. The entrance is between these reefs, and the anchorage is abreast of the Fort, in $3\frac{1}{2}$ and 4 fathoms. Some shoals also lie a league off the northern point; indeed, it has many rocks scattered about, as far as the river Calutas. The town of Natal lies on the southern shore of Rio Grande. You will have good water of 5 or 6 fathoms all the way, and may anchor with good holding ground, and well sheltered from the sea. The river is said to be navigable nearly 100 miles. Eight leagues from Rio Grande is the Bahja Formosa, and between is Pirangi, Ponta Negra,

and Ponta da Pipa. Ponta Negra or Black Point, has a small bay, fit only for small coasting craft. Your entrance is from the north. Ponta da Pipa, which is a rock on a point of land shaped like a wine pipe, on which the sea breaks. South of this rock are some springs of good water, which you may obtain if necessary, when the tides are low. To the northward of the point, the bay is open: you may anchor close to the white rock with good clear ground, in 5, 6, and 7 fathoms water. Abreast of this part, about 3 leagues from the shore, is a shoal, which may readily be discovered by the sea working over it, but on no part are there less than 4 fathoms; small vessels may therefore pass over it in safety. About 2 miles south from Ponta da Pipa is the little river Cunhau, having 3 fathoms at the bar; this will be known by a white cliff. Southward of this $1\frac{1}{2}$ mile is Bahia Formosa; this bay is 2 leagues across, and 1 league deep, but open to the sea, and too much encumbered with shoals and rocks to be recommended for anchoring in. Here are the small ports of Buzios, having some rocks scattered about its south point, but by keeping more to the northward, you will avoid them. St. Juan de Stave is to the southward, and has a shoal midway of its entrance, with a passage on either side. Tabanty Bay lies south of Stau, has several reefs of rocks within it. The most distant of them is 5 miles from the shore; keep therefore, 2 leagues or more from the land, and pass in safety. The river Congohajon is broad at its entrance, with 6, 5, 4, 3, and 2 fathoms water, decreasing as you advance up, but at the western part, where it narrows, are some sunken rocks, and on the northern side, 2 shoals which dry at low water. Port Angaro has a shoal off its northern point; between are only 2 fathoms, but to the southward of the shoal are 4 and 5 fathoms. There is a shoal also off the Southern point: give the land a good birth and you will avoid it, and having passed it you may anchor. Camaratiba is a small river to the southward, having some rocks off its larboard point, which running southerly enter into Treason bay. This bay is in the form of a semicircle, having a reef of rocks running from its east point, to nearly its centre; it has 3 openings or entrances; the larboard one has not more than $1\frac{1}{2}$ fathoms water, but the other two are capable of admitting large vessels, the middle one having 4 and 5 fathoms, bounded by the reef on one side, and the rock Picas on the other; and the third opening having 5, 6, and 7 fathoms both in the channel and within the bay, and capable of admitting 50 ships at a time. Within the bay, and opposite to a river's mouth is a spot of sand running about a cable's length from shore. This bay is good and generally esteemed the best on this coast, but it is divided into two parts by a shoal which runs from the land to the reef, terminating on one side of the bar, and lying to the eastward of the other two; therefore the frequenters of this bay, should be careful not to go to the eastward of the middle of the bay. From hence to the island of Manques, are several reefs running along shore, the farthest not extending 6 miles. This island is small, and lies at the mouth of the river Mongoangapy. This river has many reefs upon which the sea breaks, and we know only of a narrow inlet having 3 fathoms, by which you can enter; but when you are within the reefs and between them and the small island you may lie landlocked in smooth water. Southward are the two small rivers Misery and Doce, before which is an open bay; there are some sands stretching from point Lucena to the northward, between which and the land is good riding, with 5, 6, and 7 fathoms water, but the passage from thence to the point is dangerous. To the southward is the entrance to the river Pariba, having Fort Anthony on its northern point and Fort Catharine on its south, these two forts commanding the passage. The bar has $2\frac{1}{2}$ and three fathoms over it. Without the bar are 4, 5, 6, and 7 fathoms, and within is a good depth of water, the river being navigable far into the country. The city is 3 leagues up; in entering take great care to avoid the shoals stretching from Cape Ledo, as well as those from the opposite point. Cape Ledo is in latitude $6^{\circ} 49'$ south, and longitude $35^{\circ} 07'$ west from Greenwich. From hence southward, the shores abound with rocky shoals, stretching along in narrow ridges as far as Tamarica island. Four leagues from Cape Ledo is the White Cape, from which some shoals run into the sea; it is so called from some white cliffs on its northern side. From White Cape to Porto dos Franceses, or French-

man's Harbour, a ledge of reefs extend, between which and the shore vessels may ride in 10 fathoms smooth water. About the middle of the reefs is an opening, called the Bored Rock having 4 fathoms only; Porto dos Franceses is surrounded by high cliffs, by which it may be readily known; it has anchorage for about 12 ships, though the ground is bad, but vessels bound from Europe to Paraibo, generally make the White Cape called Cabo Branco, and coasting northerly to Cape Ledo, arrive at the entrance of the river. Pursuing a southerly course, you will pass the rivers Guiryo, Aveay, Guiana and reach Capibaribe, the bar of which lies between Point Pedras and Point Coqueiros, vessels of 40 tons go up this river about 7 leagues to the town of Goyana. You will now approach the island of Tamarica, for having passed Guiana, the breadth of the channel between the reef widens and deepens. Small vessels belonging to the country frequently sail through to Tamarica. The island of Tamarica has good water, and an excellent harbour, the principal entrance to which is south of the island. Vessels of 300 tons may safely go over the bar; but you must have a fair wind for that purpose, on account of the narrowness of the channel, which is in some places not a musket shot wide, and at its narrowest part is a shoal, having at low water only 2 fathoms over it; but having passed this bank, your water deepens, and you may ride in perfect safety. The bar has 3 fathoms over it with spring tides, and the rise of water is about one fathom and a half: from the bar to the anchorage is one league. The northern bar of the island is called Catuama; only small craft can enter, and to them its entrance is dangerous: within, the water deepens to 5 fathoms, and on the northern side is a flat rock, with $1\frac{1}{2}$ fathoms over it: on the northern end of Tamarica is a fort, and on a little island at the S. E. extremity of Tamarica is another. Should a mariner use this harbour, he ought, on leaving it, to run out to sea N. E. by E. until he finds himself clear of the shoals, and deepens his water to 7, 8, and 9 fathoms; he may then steer a due south course for Pernambuco, which will be readily known by the Recif or small island, situated between a rocky ridge and the shore, and about 18 miles south of the entrance to Tamarica harbour; but before you reach this place, and a league from the bar of Tamarica S. by W. is the river of Maria Farinha, south of which is Paô Amorillo or Yellow Wood river; but though there is room enough for vessels to anchor, it is considered unsafe, being between the reef and the shore in a narrow channel, and it being always necessary to have two anchors out, one on the reef, and the other on land, to prevent the ships swinging with the tides. One league south of Amorillo river, is the river Doce, where not even boats can enter; the river Tapado, is the next you will meet with, S. W. of which is the city of Olinda, standing upon a hill, on the top of which, is the Jesuits' College, a large building and very conspicuous; within the bar of Olinda, is anchorage for several ships, but though there are reefs before it, they lie too deep to protect the entrance from the winds, and the high sea which continually rolls in, renders it at all times a place of danger; near 4 miles south of Olinda, are the bars of Pernambuco, this may be said to have two bars or entrances: the northern or Great Bar, and the Picao for small vessels, having on the Recif a round fort for their defence; large ships cross the Great Bar in 4 and 5 fathoms water, and steering west, anchor in the Poco, or well, where close to the reef, is $3\frac{1}{2}$ and 4 fathoms at low water, with a bottom of whitish sand; but the Little Bar has not more than two fathoms, and sometimes not so much over it; from the Poco, a shoal of shifting sand extends onward, until you are abreast of the town of Pernambuco; this bank is full of inequalities sometimes having $1\frac{1}{2}$ and 2 fathoms over it, and often not one fathom. Opposite the bar is a dangerous shoal, which must carefully be avoided, it is nearly a mile out to seaward, and only $1\frac{1}{2}$ fathoms water; being composed of red concreted stone and shells; many vessels have struck on this shoal, it is therefore recommended to be governed by the wind, which if northerly, will lead you between the land and it to the northward, and if southerly to the southward. Pernambuco is much frequented, and is a place of very considerable commerce. In sailing from this port with a land breeze, steer S. by E. but should the wind be from the south, or S. S. E. then stand out E. N. E. and when you are to the eastward of the

Englishman's shoal, which has just been described ; you will deepen your water to 6, 8, and 10 fathoms, clear ground and whitish sand ; to the N. E. of the bank is less depth of water, but clear of danger. Proceeding southward, toward Cape St. Augustine, the shore continues to be encumbered with narrow ledges of rocks and sand, within which is shallow water, but on the outside of these ridges are 8, 9, 10, 11, and 12 fathoms, clear ground all the way. Cape St. Augustine is in latitude $8^{\circ} 27'$ S. and longitude 35° west. Vessels coming from the sea, and making the land in latitude $8^{\circ} 30'$ when in sight of the Cape, which at a distance, has not the appearance of a headland, but only a continuation of the coast, should look to the southward, where the Saddle Bow Hill will be visible, and when this hill bears S. W. the cape will bear due west of you ; if the coast should run north and south, you are between the cape and Pernambuco, but if it runs S. S. W. you are to the southward of the cape, if off Marcabipe, the Saddle Hill will bear west ; and if in the latitude of Alexo island N. N. W. In doubling Point Marcabipe to the north, Cape St. Augustine heaves in sight, at a distance it appears a long and narrow strip of land, having several breaks upon it, and a point of land resembling a small island attached to it, in shape, not unlike the head of a Tunny Fish ; on the top is fort Nazareth, to the south of the point is a bay fit only for boats, but to the north of the cape is the bay of Gaybu, where vessels may lie at anchor within musket shot of the cape. A fort is erected here to defend this bay, called Francisco Xavier de Gaybu ; immediately in front of the cape is rocky ground, until you deepen your water to 25 fathoms, it then becomes good sandy ground ; $3\frac{1}{2}$ leagues north of the cape is the bar of Candelaria, into this river boats may enter with 3 fathoms water, and $3\frac{1}{2}$ leagues further is the town of St. Antonio do Recife de Pernambuco, a principal town of the Brazils, and well fortified. From *Cape St. Augustine*, southward, the shores are low and covered with shrubs, having a white sandy beach and reefs running as far as point Marcabipe. Three leagues S. S. W. from the cape, is *Porto das Galinhas* ; this bay is formed and sheltered by the reefs without, and has 2 fathoms water within it and clear ground, but only boats can enter it. The point of *Marcabipe* is low, and appears at a distance inundated ; it is full of wood, and in sailing along appears without any projecting point, but when you are a little north of it, the point is visible. To the S. W. is *Alexo Island*, which is small, having anchorages both at its north and south ends, but exposed to the winds and seas, between this *Island* and the *main*, is a channel, $\frac{1}{2}$ a league in breadth, 4 and 5 fathoms deep ; but there is a rock near the *Island* rendering it unsafe for anchorage. Opposite to the *Island* is the river *Sarinhaym* ; further south is the river *Formosa*, fit only for boats ; south of *Formosa* is *Tramandary Bay*, the bar of which is among the reefs which encircle all the coast. But when you are once within it, it forms the best bay on all the coast, having good anchorage with clear ground, 5 and 6 fathoms at its entrance, and 4 and 5 fathoms within, defended by a fortress with four batteries ; approaching this bay, your soundings will gradually decrease from the distance of 6 and 7 leagues, where you will have 24 and 25 fathoms. The coast from *Tramandary*, turns southwestward, where, keeping an offing of 7 or 8 miles, you will sail along clear of all danger, passing the rivers *Ilhetos*, *Huna*, *Piracununga*, *Dordaris*, and *Mangos* ; here you will see the point and church of *St. Bento*, before which is *Barre Grande* ; this place has many reefs running into the sea, and in it is a flat rock, opposite to a small rivulet, and covered with water : this bar is abreast of some cliffs, and has 3 fathoms water over it. Further on is *Porto Calvo*, fit for vessels of 120 tons ; and of these about 6 may be accommodated with shelter, those who are unacquainted with the place must keep the lead going, for along the coast 2 miles from the land are reefs, stretching along between these is the bar, having 5 and 6 fathoms over it, 3 and 4 within them, and when you are into the river, you will lie in calm smooth water, with a bottom of sand ; about 9 miles further, you will reach the river *Camarigibi* ; the shore is level, the beach white, and the reefs still continue at the distance of one and two miles from the land ; on the south side of the *Camarigibi* river are some cliffs of red sand, and these stretch toward the *Rio Antonio de Grande* ; further on is *Sapuagira* river,

and then little Anthonio river ; near the latter, is another range of red cliffs and 3 round hills, the middle one being the lowest, all these rivers are fit only for boats. Coasting onward in a S. W. direction, and always giving a good birth to the reefs, you will reach point Saragoay, forming two capacious bays, where vessels of any size may find occasional shelter.

You will now pass Alagoa, and further on St. Michael's river, navigable only by small craft ; rivers Yaquacu and Ipoci are of the same description. Coriopo river is to the southward of these, and has before it a rocky bank called Baxo Diego Roderiguez ; it appears above water, is a full league out at sea, and stretches a considerable way to the southward, perhaps five or six miles ; between it and the land, large ships may pass in safety ; but the river Coriopo is so narrow and has so little water in it, that at low water it is nearly dry. At the extremity of the reefs is the small river Ipeba, having passed which, you approach the river St. Francisco before the south point of entrance to which is the island of Passaros ; between this island and the main, is a channel called Garatuba River leading into the Rio St. Francisco ; it is narrow, and you have 2 and $2\frac{1}{2}$ fathoms water, therefore in fair weather it is often preferred to the northern entrance, having also less tide to oppose your passage. From the island Passaros a shoal runs out more than one mile and a half into the sea. The Rio St. Francisco is so rapid and strong that few vessels attempt it ; the entrance is to the northward, and when within, you anchor at the port of Piasabusa, about 3 leagues from the bar where the water is deep ; about 7 or 8 leagues up, is the town of Penado. From the island of Passaros, the shore bends circularly to the westward to Cutindiva, Sergipa, and Rio Real, and is by some called Vazibaris Bay, into which the sea rushes tumultuously, ~~more~~ especially when the wind is from the west and southwestward ; it is accordingly considered dangerous, and had always best be avoided, by keeping out at sea. Cutindiva, and Sergipe is fit only for small craft, and the latter is so blockaded by shoals at its entrance, that it requires a good and correct knowledge of the place, to attempt the passage. Rio Real also, is equally dangerous and impracticable with a large ship, on account of its numerous shoals and its strong current, against which it is scarce possible for any vessel to proceed. From Rio Real the coast runs S. W. to Tapicuru River, which is small, and fit only for boats ; the breakers at its entrance run so high, and the land itself is so low, that it is with difficulty its entrance can be discovered. Inland the ground rises, and a league from the shore you pass in 10, 11, and 12 fathoms water ; further out it deepens to 50 fathoms ; from hence you arrive at Torre d' Avilla, having passed the small river of Ponica, before which is a fishing bank, with 9 fathoms water ; here small craft frequently anchor ; from hence you reach the small island of Tapoame 3 leagues S. W. of which is the entrance to the Bahia. When bound to the Bay of All Saints, and coming from sea, do not make the land in less than $12^{\circ} 30'$ south latitude. The land is in appearance very remarkable, being studded with hillocks of white sand, like linen laid there for bleaching ; while this appearance continues, you will keep your southwesterly course ; and immediately it discontinues you will find yourself at the mouth of the Bahia, the island of Tapahone will show itself, but come not too near it, as foul ground runs out from it, steer S. W. by W. and you will avoid the shoals of St. Antonio, and as soon as you can descry the point whereon Fort Philip is erected, steer right in. These directions are for the N. E. monsoons, or for the months from September to March, but during the monsoons, setting in from March to August, and blowing from the S. E., E. S. E. or S. S. E. you must not make the land in less latitude than $13^{\circ} 30' S.$; the shores will have a sombre appearance, and you will particularly observe a bare round hill standing near the sea, and called St. Paul's Mountain ; approach not too near, because of a shoal bay, formed by the rivers Taporica, or Yaguaripe, but with a good lookout run northward until the Bahia opens to the eastward of Taporica Island ; keeping therefore to the westward of Cape St. Salvador, and giving the east point of Taporico a birth of 3 or 4 miles, you will enter the bay steering W. by N. and N. N. W. ; beware of the shoals of St. Antonio and you will have

24, 20, and 18 fathoms all the way to the Island of Frades. On Cape St. Antonio stands a fortress; a little further is another, called St. Maria; three others, the new fort, Diego, and fort Praya, will appear before you reach the city of St. Salvador. This is built upon a rock, stands high, and is extremely populous and opulent. Beyond the city are several other forts and batteries, particularly Fort Philip, built upon a point of land nearly north of Cape St. Antonio; between these two points, the coast forms a semi-circle, where vessels anchor, having good clean bottom, holding well and sheltered from the winds. Directly abreast of the city is the Albertus shoal, narrow and long, about one mile from the shore. Off fort Philip, also, a reef extends one mile into the bay; this, together with the land runs northeasterly to the entrance of Tapogipe River, on the starboard entrance to which is fort Bartholomew. The river has 6, 5, 4, 3, and 2 fathoms, decreasing as you advance, but before the entrance to the river, there are 15, 16, and 17 fathoms, advancing to 40 fathoms, in the middle of the bay of All Saints, which here is wide and free from danger. To the northward is the Island do Mar, having some shoals, off its eastern side; to the N. W. is the Island of Frades, east of which are many rocks and shoals, but not in the way of vessels using this bay. Between the Island Frades and Point Baleo, which is the northernmost land of Taporica Island, and upon which are six forts, there is a good channel $4\frac{1}{2}$ miles wide; to the northward of the Frades, also, is a passage, but much narrower, and encumbered with shoals; there is also a channel west of Taporica Island, but as this is intricate, and in many parts intersected with shoals and rocks, therefore never used by Europeans or Strangers, its description will be considered unnecessary. At the south end of Taporica, are many shallows and flats, running 3 leagues from the island, and between the west point and little Taporica, is the Yaguaribe River, full of shoals, though with 3, 4, and 5 fathoms water. About 7 leagues to the southward, is the Morro or Headland of St. Paul's, south of which runs a river, having 4 and 5 fathoms water, the entrance to which is called Sobreaguades Bay. In entering this river, keep the starboard land close as possible, for the opposite side is so filled with dangers, that if your ship should get entangled in them it will be lost. On the side of the island towards the sea, a reef of rocks accompanies the coast for 5 leagues, terminating in shoals of one league further. Seven miles south of Sobreaguades Bay is Tabatingo Bar, fit for boats, &c. and further on is a reef stretching S. E. from the land about 2 miles, and forming the northern entrance to Serinbayn River. To the south lies the Island Quepa, and 2 miles south of Quepa is a point of land, from which a shoal extends northerly, narrowing the entrance to Comomoau. Large ships may go safely up the River Comomoau, having 15, 12, 10, and 8 fathoms for many leagues. Being about 2 leagues within the bar, several islands divide the river into separate channels, the widest of these is called the River Marau: this is also the deepest. The town of N. S. da Conceicao, is about 9 or 10 miles up. The River Serinoghayn is broad, but encumbered with many shoals. There is a channel also to the town of Camomoau. The Grande Bar is fortified, and capable of receiving large ships. From hence to the southward, the shores are covered with Mangues, which coasting along, you will come to some high land, terminated by a white rock, and this rock is the south point of the Rio das Contas; the river is narrow and full of sunken rocks, so that only boats enter; from hence to the Ilhos, is 24 miles; the coast is clear and the soundings regular. The Ilhos are two islands, appearing, at a distance, in the shape of cardinal's hats, about 4 miles from the land; one being covered with trees, and the other bare. From them a reef of several rocks extends southward, rendering the passage that way hazardous; but to the northward of them, the channel is good, and between the northern Ilhos and the main, you may anchor in 8 fathoms, muddy bottom. Opposite to the Ilhos, is the river of the same name, which, when you are within, divides into several branches; on the first of these, called Lake Taypa on the north side of the river, is the town of St. George, nearly opposite to which is the village of Aldea; on the bar are less than 3 fathoms at low water, but upwards of 4 fathoms in some places. The principal land mark of this river is a round billock, which has the appearance of an island,

though in fact, it is but part of the main; and close to the entrance on the north side, is a high land called the Dog's Snout or Point Caon, at the foot of which are breakers. When these rocks or breakers bear E. and W. from you, enter and keep the southern land close; you will then have the mouth of the river open. Coming from sea between the months of March and September, and wishing to run for these islands, you should get into latitude $15^{\circ} 30'$ S. and making land in this parallel, you will first see the Aymores Mountains, then run on north for the Ilhos; the coast is clear of danger, and the Ilhos are in lat. $14^{\circ} 50'$ S. But if your voyage be between September and March, endeavour to make the land in the latitude of 14° S.; you will then see the land of Camomoau, which is covered with thick mangues, which made, run southerly, and observe the directions given above. From Point Zambo, the southern point of Ilhos River, the shores become hilly as far as the river Contando Tuba; you will then pass the small rivers of Duna, Juzia, Patipa, and arrive at the river Grando, which last has three bars or entrances, but none of these rivers will admit any but small craft. The shoals of St. Antonio commence about the entrance of Rio Grando, and many of them above water; keeping therefore to the southward, and passing to the eastward of these shoals, you will perceive a reef of seven rocks; here you will have an opening leading to the port or harbour of Santa Cruz. Steer in west, keeping the lead going, and you will find anchorage in 3, 9, and 10 fathoms. When you are fairly within the reefs, the water will be quite smooth, and you will ride in a spacious and secure bay. Here the first vessels that ever visited the Brazils came to anchor, and here, also, the first settlers fixed their establishment, though they afterwards removed to Porto Seguiro, which is to the southward. If bound to Porto Seguiro during the months from March to September, you must not make the land in a higher latitude than 17° south, lest you fall in with the Abrolhos, and from September to March, you should endeavour to fall in with it in the latitude of $15^{\circ} 30'$ S.; where you will see the Aymores Mountains, as before directed; but when you make it in 17° or $17^{\circ} 20'$ you will notice a hill of considerable extent, called Mount Paschal; there is a white rock near it, and on its north side a spacious valley; you will then see some red cliffs, having an open strand to the southward, north of which, is Porto Seguiro. Being E. and W. with the above white rock, you will perceive some breakers, which extend northward 6 or 7 miles into the sea; on the south side of these breakers is Porto Seguiro, where you may anchor in from 8 to 10 fathoms water. This harbour is safe and commodious, and at its entrance may readily be known by four high rocks, appearing like the Needles at the Isle of Wight; the western ones are of the Sugarloaf form, and the innermost has an archway perforated through, the sea passing under it. A little southerly, is the river Serinham, on the banks of which is the town of Seguira, and the villages of Bocay, Juda, and Amaru. Several rocks and islands lie off the land from Seguira, northward, as far as Rio Grande, and between are good anchorages; but it is requisite you should have some previous knowledge of them, before you attempt anchoring. Between the Point Gorda and Long Island there is anchorage, and also, abreast of Povocao Valho. To the eastward is a good channel, through which, leaving the outer island, or the island of Nostra Citio di marena fara, to the eastward, you may pass in safety; the water deepens fast to seaward. Eight miles east of St. Antonio's Bank are 19 and 25 fathoms, then 33, and a few more casts of the lead there is no ground at 60 and 75 fathoms, passing to the southward, and having Mount Paschal in sight, you will reach the Abrolhos islands and shoals which stretch out in divided patches above 60 miles from the main. In the latitude of 13° are four islands, forming almost a square. The N. W. island is called Seco, and the S. W. Barbora, while the S. E. is named Passaros and the N. E. Monte dos Pedros. These islands are without wood or water. On the N. W. side between the two largest islands, is a passage with $2\frac{1}{2}$ fathoms, and water so clear, that the rocks at the bottom, can easily be perceived; to the S. W. also is a channel with 8 and 7 fathoms water. E. and S. E. of these islands, the ground is all rocky for a considerable distance, and you may see the rocks, although in 15 fathoms water. Ships passing this way, should keep a good look-

out, and mariners frequently first sail into soundings about this part; for to the eastward of the islands, as far as the 38th degrees of longitude, are 50 fathoms, decreasing as you approach the Abrolhos. Soundings have also been had in the parallel of 18° latitude, as far as longitude 35° 30' the bottom of stones, shells, and coral rock. We do not think it advisable for vessels bound to Rio Janeiro, to make soundings here, but prefer going more southerly, as far as the latitude 22° S.; but if you should near the shoals of Abrolhos, come not into less than 20 fathoms, and steering south a little west, you will meet with no impediment. To the westward of the four islands before mentioned, is a channel running north and south; it is broad, and has 12, 13, and 14 fathoms water, with a clear bottom of sand and mud. Between this and the land are several rocks above water, of soft calcareous nature, and appearing like large hats, for which reason they are named by the Dutch, Chapeiroens, and by others the Jesuits. This channel is safe, though not much frequented; but should a vessel be driven to these islands by bad weather, she may effect it by a N. and S. course to the largest island, in 8, 9, and 10 fathoms water; an India ship will find anchorage about a musket shot from its northern point in 10 fathoms, with a bottom of sand; if a smaller vessel, she may run along the island to the southward, in 6, 7, and 8 fathoms, then doubling its point, stand W. and as soon as she is N. and S. with a particular opening in the island, anchor in 4 and 5 fathoms. Ships bound from the Bahia to Espirito Santo, or Rio Janeiro, &c. may navigate this coast at any season of the year, either in a small vessel, by coasting it, or by standing to the eastward and clearing the Abrolhos altogether. But if you should coast it, the mariner will attend to the remarks already given to Porto Seguro, from whence, having passed Mount Paschal, (which is situated between the rivers Jacho and Sarnabitaba,) the Abrolhos shoals begin. The inner or little channel is intricate and known only to the natives, it is therefore hazardous to attempt; but having passed the rivers Carivelus, Parnipa, and Parupa, (which are said to unite inland, insomuch that persons have been known to sail up the one and come down the other,) you will arrive at Point Abrolhos, which is high land and to the south of all the shoals. Sailing on southwesterly, you will pass the island of Goerce, behind which a vessel may anchor, and arrive at the mouth of the river Doce, whose waters are so rapid and full, that its entrance is rendered difficult, even to small craft, though the depth is considerable, and canoes navigate it upwards of 20 leagues; further on, is the River dos Reys Majos, (before you come to which, is a mountain of the same name;) here is an anchorage between the shore and some islands, the outermost of which is named Drielingen, and the inner one, Reposo. Having passed the river Sierra Mestra, Lunare appears, terminating to the south, with a point called Shark's Point, or Punta de Tubaraon, and between them, is the river Rorreyras, fit only for craft; you now reach Espirito Santo, which, though narrow, is capable of harbouring large vessels. On its southern point is a cliff or rock called Morro de Juan de Morena. In making for this bay, in latitude 21° S. you will see several hills, one of which is very high and ragged. This stands near the river Goropara; and to the northward is another hill called Pero Cao. When you make these hills, you will also see three small islands, and to the southward is another. This joins to the small river of Goroparo, admitting only boats and small vessels; these sail up west, leaving the flat island Reposo to the northward, and anchor between it and the land. We have said the entrance to the bay of Spirito Santo is narrow; at its entrance is a shoal, which must be left to the southward, and sail right on for the island within the bay, and when you have brought it to bear N. or N. W. you may anchor in good and clear ground; you will have 8 and 7 fathoms at the entrance, and 5 and 4 when at anchor. About 36 leagues S. W. from Spirito Santo, is Cape St. Thomas; in taking your departure from thence to Rio Janeiro, vessels should steer out S.S.E. to avoid some flats and shallows said to exist in the neighbourhood of the cape, and when you are in the latitude of 22° change your course to the westward. There is said to be a passage within these shoals, through which the small craft coast along, but it is not sufficiently known for us to give a description of. There are several rivers on the coast, viz. Goropara, Iritibi,

Tapoana, and Paraiba, of these, the latter is the largest. Cape St. Thomas is low, and cannot be seen far off. Vessels coming from sea and making the land thereabout, should be particularly careful not to go to the northward of 22° on account of the shoals above mentioned; for you will be upon the shoals before the land can be discovered; but being E. and W. from Cape Thomas, your course should be W. S. W. The three islands of St. Anns will then heave in sight; stretch on in that direction for Cape Frio; but should you not be able to reach the Cape, you may come to anchor between these islands; the largest or middle one, is about a league in circumference; having, on that side nearest the main land, a pleasant bay, where fresh water may readily be obtained. Between these islands is a passage; and the northern island has, on that part facing the main, a good convenient place for ships to careen. To the northward of the island is Bahia Formosa, to the S. W. is St. Ann's bay; off the southern point of this bay is White Island, and due east from Buzios Point is Anchor Island, distant about 5 miles, and having deep water between; the shore from hence, has several scattered islands as far as Cape Frio. The land from St. Thomas to Cape Frio is high, and in clear weather may be seen more than 20 leagues off at sea; and in the latitude of these capes, that is from 22° to 23° S. you will have soundings at that distance, from 100 to 9 fathoms, decreasing very perceptibly; as you near the land, you will observe a current running strongly towards the N. E. Cape Frio lies in $23^{\circ} 01'$ S. and is remarkable; for when you are distant from it 14 or 15 leagues, and it bears W. S. W. from you, your soundings being 49 and 50 fathoms, muddy ground, the Cape will then appear like a small island with two little hummocks, while from the mast head you will perceive a small island close under the high land south of the Cape. Among the many lofty mountains by which your approach to the Cape may be known, is one to the northward, about midway between the Cape and St. Ann's Island; it is called the high land of St. John, and appears like an old decayed church, the tower seeming to be on the S. W. side. If vessels should have occasion to put into Cape Frio, there is to the northward a place of good shelter, and very convenient for small vessels, called by some, Praya de Angra, and by others, Porto Alerto. The entrance is between the northern point of Cape Frio Island, and the Island of Porcos; there is no danger; the water is deep, and you will obtain good shelter, provision and fresh water; you may heave down, if requisite, and obtain any kind of assistance from the town. To the northward between Cape Frio Island and the main, is a channel, but very narrow, with 4 fathoms water. You should, in attempting this passage, keep near the island, as a flat of sand stretches nearly across from the side opposite; the stream from the westward, runs very strong through it, rendering it hazardous. From Cape Frio, the coast runs directly west to Rio Janeiro, a distance of 27 leagues; there is a strong current from the west, and you may sail along within 3 leagues of the shore, in from 30 to 40 fathoms water all the way; further out the water deepens to 60 and 70 fathoms and upwards. At first, having passed Cape Frio, the land is low, and scarce to be seen at 6 and 7 leagues distance; but sailing on to the westward, it becomes high, appearing in hummocks, and like the form of sugar loaves. In the way vessels may anchor either a little past the Monks, in from 20 to 30 fathoms water, clean ground, with a bottom of green sandy mud, or near the Maurice Island in 18 fathoms. You will now approach the entrance to Rio Janeiro, which may easily be known by a remarkable sugar loaf hill on its western point; there is also to the southwest, another singular one called Gavia or Tajuca Point, known to the English by the name of Parrots-beak. **This high land we recommend ships to make, when bound for this harbour, and with light winds, cast anchor, waiting for the sea breeze; this will be found more advantageous, than being driven to the eastward by the current. The anchorage though deep, will be clean and good holding ground, of a greenish mud, and the sea breeze blows every day from 11 o'clock till sunset; it will, therefore, be very easy for a ship to run in before the wind. Observe there are several small islands off the entrance to Rio Janeiro, the most remarkable of which is Round Island or Redondo; it is bold too on its N. and E. sides, and formed like a bay**

stack, but off its southern side are several dangerous rocks. In day time, these dangers will be seen by the rippling of the smallest sea; but at night, or with thick weather, come no nearer than 2 or 3 leagues of the island. To the eastward rather more than 2 miles, is Razor or Flat Island; and between, is a good passage, with from 10 to 17 fathoms; and to the northward of Round Island, are 4 or 5 small islands; these are all to be left on your starboard hand as you enter Rio Janeiro. In running into the harbour, observe when Sugar loaf hill bears N. W. the channel is open, and as you near, you will see the shipping at anchor. At the N. E. side of the entrance, is a strong fort lying nearly N. E. of the Sugar loaf, about $2\frac{1}{2}$ or 3 miles apart. This is called Fort St. Cruz. Here every vessel at entrance, must bring to, and an officer be sent to announce the arrival, and the purport of its voyage. The colours must be hoisted, and sometimes the harbour master takes charge of the vessel, and conducts it to moorings. The mate is often taken and examined; but the captain must on no pretence quit the ship until the health of the crew, and the particulars of the voyage are made known. After this, a submission to the existing laws of the country is required, together with other ceremonies. You are then permitted to go on shore, and hold intercourse with the natives; but you must land at the palace stairs, and neither officer nor seaman is allowed to walk about the city, without the military accompanying him. When you are abreast of the fort, keep close in toward the fort of Santa Cruz, or in mid-channel, and anchor in 16 or 18 fathoms abreast of the town. When within the entrance, the course up is N. by W. $\frac{1}{2}$ W. about a league, which will carry you to the island Cobras. In your passage you will leave on your starboard hand, the forts of Santa Cruz, Boa, and St. John's Battery; on your larboard hand, fort St. John, Square Island fort, Round Island Battery, and the fort of St. Sebastian. This latter is built on a high island, and abreast of the tower of Rio Janeiro: there is a regular tide at $7\frac{3}{4}$ hours ebb, and $4\frac{1}{4}$ flood with very little slack, and its velocity is from $3\frac{1}{2}$ to 4 knots an hour. It is high water at 4 o'clock. Refreshments of all kinds may be obtained at this place; beef and mutton, good, cheap, and plentiful; fruit and vegetables in abundance, fresh water with ease, but wood is somewhat dear. Above the town of Sebastian, this harbour becomes extremely capacious; but European vessels seldom have any occasion to navigate further than we have described. Round island at the entrance of Rio Janeiro, is in latitude $23^{\circ} 5'$ south, and in longitude $43^{\circ} 19'$ west from Greenwich. S. W. of the entrance to Rio Janeiro about 14 leagues, is the Maranhaya channel, the shores between being mountainous. Leaving the hill of Gavia, you pass Tejuoa river and four small islands; leave them to the northward. Following the shore, you pass also the Palmas islands. There is a passage between all these islands and the main, but never used by ships of any burden. On their outer or southern side, you will have from 15 to 30 fathoms water, until you arrive before the bar of Guaratiba, fit only for small craft. Sailing onward, a strait or channel runs along the coast; you must keep off the land, because the current constantly sets upon it, and passing by a low, sandy island, you will see the mountain of Maranhaya: it is high, round, and barren. Farther on is Maranhaya channel, formed on the western side by the island of Grande; this opening is near 2 leagues wide, leading into a spacious bay, within which, and at the back of Maranhaya island, is good anchorage. The island Grande has also several bays, which are safe and capable of containing ships of burden. Entering by the channel of Maranhaya, on the island of Grande, is Palmier's bay, called by some Seio de Abrahao or Abraham's Bosom, from the security with which vessels may ride there; but far more safe and secure is the bay at the west point of the island. North of the island Grande, is the Villa Grande, or town of Angra dos Reos; before which are many islands and rocks, with anchorage between; riding near midway of the island Grande, the island Japoa bearing north, about $\frac{1}{2}$ a league from the main land. Here you may anchor in 6 or 7 fathoms. Besides the channel of Maranhaya leading to the village or town of Angra dos Reos, there is the Gairoso, a channel to the westward of the island Grande full 3 leagues wide, with deep water and clear from every danger except a small sunken rock said to lie midway of the channel, which can easily be avoided by sailing on either side, in from 12 to 20 fathoms. A town or village

lies on the western side of the main, called Parasay, but it is little frequented, and consequently little known to Europeans. Passing point Iotinga, which is the western point of the Gairoso channel, and sailing 36 miles westerly, you will see the island of St. Sebastian, before you reach which, and about 4 leagues S. W. of point Iotinga, is Cabbage island, affording a port on its western side, both wood and water. Large vessels may pass between it and the main in safety. To the westward, and about one mile from the main, lies Hog island, having a good channel with 6, 7, and 8 fathoms water between; this place is named Shark's road. To the southward is Monkey island, and farther on, the north point of St. Sebastian's island. To enter between St. Sebastian's island and the main, you should steer a S. W. course; keep near the island's side, on account of a shoal stretching from the Convent to the village of Francisco. This island is above 5 leagues in length, and can shelter many vessels; the anchorage is either at Guaromim bay, or before the village Armasao; here is a small fort, and to the southward is a sunken rock. In the middle of this channel is 12, 13, and 14 fathoms decreasing on both sides as you near the land. Southward you will pass the village of Sebastian; and sailing out at the Toque Toque, you will see the Alcatrasses or Cormorant's island, round which is foul ground. There is a small port on the eastern side of the island of St. Sebastian called port Castilhans and to the N. E. are the islands Victory and St. Luzia, both uninhabited. Taking your departure from Toque Toque, you pass Mount Trigo, a small island; and to the westward is Barra de Bertioga, where none but small craft can enter, and these only when they are unable to reach the Great bar. Ships of burden do sometimes attempt it, in which case you must hug the main close to the bare head land, where there are 10 fathoms water; but running along the coast, you come to Craw island, lying about a mile off, and then standing off till you double a high point of land which is on the principal entrance or bar of the Santos. Vessels must sail into this place due north: its entrance is about one league wide, forming a circular bay, with a sandy beach. To the eastward is point Engenho, and further on a fort, opposite to which, and on the other side of the channel, is fort Trinxeira: the passage here narrows, not being above half a mile wide. Abreast of the forts are 14, 12, and 13 fathoms; the channel runs E. N. E. and then N. N. W. and west, until it reaches the town of Santos, before which is anchorage in 5, 6, and 7 fathoms water. The whole of this channel is good, and free from any danger whatever. The Barra de St. Vincent is to the westward, and was once a good channel, but the continual increase and accumulation of sand has choked its entrance up, scarce admitting canoes to pass. S. E. about 3 leagues from the entrance to the Barra de Santos, is a flat rock, appearing white from the dung of birds; this you will readily avoid. To the southward of this place lies the small island of Redondo, in latitude $24^{\circ} 33'$ above 20 miles off shore; and 18 miles S. W. from the Santos is Conceicao bar or Itanhaem, which is narrow, dangerous, and used only by boats and small craft; a large rock lies on the middle of the bar. Three leagues and a half to the east are three small islands called the Burnt islands; 50 miles S. W. is the river and bar of Iguape. Both these are filled with sand, so that canoes can scarce enter with safety, but if you get within the bar, an arm of the sea carries you all the way to Cananea; this canal divides into two parts, forming a complete island, on which stands the town of Cananea, before which you may anchor in 5 and 6 fathoms water. The inner or northern canal, called Mar de Arciraya, runs at the back of the island, receives several small rivers in its course and empties itself into the Mar de Tarapande, which also runs to the Barrade Cananea. From the Barra de Iguape, to the Barra de Cananea, is about 30 miles, the shore low and flat; opposite to the entrance lies the island Abrigo, dividing it into two channels: both of which are dangerous, on account of the breakers and shoals thereabout: the northern entrance, called Barra Falsa, is narrow and shallow. Corvettes and small boats only enter there; the southern entrance is wider and deeper, and into this, ships of burden find a passage. Sail on to the southern shore, keeping close in 3 and 4 fathoms water; but observe, the bar is shifting, and consequently dangerous to all strangers. The bar is about a mile in breadth; when you

are within, you will deepen your water to 5, 6, and 7 fathoms, and may anchor as most convenient for your purpose. From Cananea southward, you will fall in with a small island called Castillo; this is nearly opposite to Arrepira, which is now not navigable. Further on is Figuera, another small island; and coasting along you will reach the Barra de Superagui, admitting canoes only. This creek is divided from the main entrance to the bay of Paraagua by the island of Pecas, near a mile from the southern part of which are some rocks. These rocks form the northern boundary of the channel, while the island do Mel, lies to the south; between the passage is nearly a mile in width. A league off at sea, are only $3\frac{1}{2}$, 4, and 5 fathoms, but as you approach the bar, it deepens to 5, 6, 7, and 8 fathoms. In the channel are $4\frac{1}{2}$ and 5 fathoms, and when within, you will have 5, 6, and 7 fathoms. There is another entrance to the southward of Mel island, called Barra de Sul, but like Barra de Superagui, it is fit only for boats. The course to Parangui town, and the villa Antonina is due west; the former is on the larboard side, almost 4 leagues from the bar, while the latter is rather to the northward, and about 6 leagues up the river, there are several islands scattered about, but the channel is generally clear, and every known danger is visible. Eight leagues S. W. is the Barra Guaratuba, or Guarativa, before you reach which, you will meet two small islands 5 miles from the shore. The entrance to Guaratuba is on the north side, near a large rock, where you will have a deep channel with 15, 18, and 20 fathoms water; but from this, all is shoal to the southward, and to the seaward, for nearly 5 miles; this river is remarkably rapid, and famed for its fisheries. Whoever runs for this harbour from the northward, should keep close to the land, make for the point of the rock above mentioned, and when about to enter, keep the small flat island astern. This island lies about $1\frac{1}{2}$ mile to sea, and your anchorage will be immediately behind the hill to the northward, or opposite to the hill on the south side. This river is supplied by several others, of which Rio St. Joao is the most considerable, and is said to be navigable for upwards of 12 leagues. About 20 miles southward is the northern entrance to the Rio St. Francisco, called Bepitanga, capable of accommodating any vessel, and having from 6 to 13 fathoms in its channel to sail in, it is advisable to coast up the land which lies at the southward in 6, 7, and 8 fathoms, and when you arrive at the head land where this coast ends, you should make for the northern point, taking care to avoid a bank, running to the N. E. which is shoaly, having not more than one fathom at low water, and as soon as this north point comes abreast, stand S. by W. for the town, or for the church of St. Joze, built on an eminence: opposite to this you may anchor in clear ground. The other entrance to the river is 5 leagues to the southward, and fit only for canoes; but opposite are two islands with anchorage and shelter from the sea, in 4 and 5 fathoms water, with a bottom of whitish sand. To the southward are the rivers Tapuca and Tramandi; the latter is narrow but deep, and said to be navigable for boats, more than 40 leagues. The Ensenada de Tajayhuge is to the southward, and further on the bay of Guaraupas, the entrance to which is 8 or 9 miles in breadth, well sheltered from all winds, and depth of water for any ship; two rivers discharge themselves into this bay, over beds of white rocks, and the surrounding land is covered with thick woods. To the southward is point Manduri, from whence you proceed south, to the island of St. Catharina; this island is 33 miles in length from north to south, and its breadth is in some places very narrow. On its eastern side we know of no anchorage; its northern point lies in $27^{\circ} 21'$ south latitude. In coming from the northward, it has a remarkable island, shaped like a galley, by which name it is generally distinguished; while to the southward is Alveredo, or Woody island, to the westward is the bay of Tijucas. To enter between St. Catharina and the main, the best and most frequented passage is between the north point of the island and Alveredo; but you may go between Alveredo and Galley islands, and in case you cannot accomplish either of these, proceed between Galley island and the main; and should the wind die away, turn in and anchor in Tijuca bay. Desirous however, to get to St. Catharina, keep midchannel, and steer southward between two forts, anchoring abreast of the river Ratonos, or go

on to the town, which stands on the western part of the island, and is much frequented; there is a southern channel, but it is difficult to navigate, and chiefly used by boats: water may be had of good quality, and in abundance; also provisions and many articles of commerce. The tides are irregular, the flood entering by the two channels north and south, and proceeding as far as the narrow strait, but yet it does not rise above 3 feet. Arazatiba bay is on the main, to the southward, where vessels sometimes shelter, but we have already said the entrance to it is dangerous. Three small islands lie at its mouth, on one of which a fort is erected, and about a mile to the eastward of these, are three others somewhat larger, and called the Irmines. N. E. of these is the Moleques do Sul, and southeasterly is Coral island, or Rock, between which and the shore, vessels may anchor. To the southward, in latitude 28° is another island, called Aboreda del Sul; this is situated about 2 leagues from the shore, and between is a good passage. To the southward are rivers Patos, Ririqueera, and the islands Embatuba, lying close in with the shore. Passing on, you will observe the Hill of St. Martha, a projecting headland, and forming the southern point to the Lagoon river, on the north point of which, is Villa Neuva; the intermediate rivers from St. Catharina to this place are small, and choaked with sand. Vessels therefore give this part of the coast a good birth, sailing at 30 or 40 miles from the land, and having 40, 45, and 50 fathoms water, without any danger. From hence the shore bends west and southwesterly, high ridges of mountains appearing inland. The rivers Urueanqua or Aracangua, near which stands a convent, Iboipitinhí and Manpitabi, lie between; they are all shallow, and unfrequented by any but canoes. To the southward is the Lake Tramanday, having a village of the same name to the northward, and that of Ioao Antines to the southward; the entrance to this appears about a mile wide, and opens into a large lake running northerly in the direction of the coast; about 50 leagues off land now intervenes, running generally south and southwest, without any river or bay. You will then arrive at the Rio Grande, or Great Lake of St. Pedro, the entrance to which lies in $32^{\circ} 8'$ or $10'$ south, but vessels having a northerly wind, should make the land in latitude $31^{\circ} 30'$ south; but with a southerly wind in latitude $32^{\circ} 20'$ south, approaching the land to a convenient distance without any risk. Across the mouth of this river runs a bar, and as you approach, you will see a Pilot boat stationed there, purposed to direct the mariner. Observe her hoist a red and white flag fore and aft; if both are kept up, be sure there is sufficient water over the bar; you must then steer directly for the Pilot boat, watching the motions of the flags; for if the Pilot directs you to steer to the starboard, he will lower the staff the flag is affixed to, pointing it starboard; this he will continue to do until you steer the proper course; he will then return the staff to its former position. The same with the other flag. When there is but one flag up, you must steer directly for the boat. When one red flag only is put up and taken down again immediately, you must anchor, hoist your colours and a jack at the foretopmasthead; the Pilot will then come on board. But should the weather not permit your anchoring, you must put off to sea; for when the winds blow strong on shore, and the sea runs high, the land ought not to be approached too near, it will always then be most prudent to keep 9 leagues off, or in about 30 fathoms water. The S. E. and S. S. W. winds cause the greatest rise of water over the bar. When the wind is from E. S. E. to W. S. W. the south bar is the best to enter; and with winds from E. to N. the north bar. Although the entrance of the Rio Grande is narrow, yet when within, it widens to a large lake, running northerly for upwards of two degrees, and receiving several rivers from the westward; on entering over the bar, you will have a fortress on the western land, and further in, several batteries, until you arrive at the Villa Grande, where stands the Fort St. Pedro; on the opposite or eastern shore, stand the batteries of St. Pedro, near the entrance, and the batteries of St. George and St. Barbara further on; you will then pass Fort da Coniscao, and Fort das Fingueras; there is also another battery to the northward; over the north bar is $1\frac{1}{2}$ fathom at low water, and over the south 3 and 2 fathoms; within the bar is 4, 5, and 6 fathoms, and ves-

sels may anchor either before the battery da Fuarda do Pontal, on the western side, or near Fort Figueras, or further north. The Lake of Rio Grando has also a communication with a large lake to the southward, by means of a narrow channel, guarded by Fort Gonzalo; two degrees south of Rio Grando, is the river Chuy, narrow and little known; this is the entrance from the sea to the lake above mentioned, having on its southern banks Fort St. Michael. Between Rio Grande and to the southward of this river, as far as point Grande Castillos, the shores are encumbered with many shoals, their exact forms and depths of water, being known only to the natives; it is asserted, some of these shallows extend 10 and 12 leagues from the shore: it is therefore, recommended, that mariners bound to Rio Grande, do not make land in a higher latitude than $32^{\circ} 20' S.$ Vessels bound to the river Plate, should make the land of St. Mary in latitude $34^{\circ} 38' S.$ as hereafter directed. Off the coast of South America, but at a very considerable distance, is the Islands of Trinidada and Ascensao, a description of these may be considered useful. The Island of Trinidada lies in $20^{\circ} 32' 30''$ south latitude, and in longitude $29^{\circ} 9' 30''$ West. In coming from the eastward, as you approach it, the Islands of Martin Vaz, three in number, will first be perceived at the distance of 8 leagues off; they are remarkable, and lie about 9 leagues E. by N. of Trinidada, are nearly north and south of each other, and cannot easily be mistaken. The middle one is high and covered with grass, the two others quite barren. Between the southernmost and centre rocks is a passage, but between that and the northernmost, it would be hazardous to attempt one, they appearing almost to join, and when seen at a distance, are like five distinct heads of land. Trinidada is nearly 6 miles round, unequal and rugged; mostly barren, though in the valleys are several shrubs, with plenty of sea fowl, and the shores are covered at times with stock fish. The landing is dangerous, on account of the great surf which continually breaks round the Island; this occasions watering to be scarcely practicable, though the water is excellent, yet is doubted whether it be plentiful or permanent. You may anchor on the west side of the Island, about a mile from the shore, in from 40 to 45 fathoms, coarse sand; but do not anchor nearer. Here you will see a stupendous chasm in the rock, forming an arch, and two remarkable rocks called the monument and the sugar loaf, the former 350 feet high, the latter 1160 feet, and both have trees on their summits. It is said the best anchorage lies off the east side, the west side being rocky; this side is distinguished by an old Church with a large cross upon it; off this you may anchor in 6, 8, 10, and 12 fathoms, the cross bearing W. S. W. and a point of land, resembling the South Foreland, bearing S. W. by W.; thus situated, we are told a vessel may be moored with one cable on shore. The watering place is near the church. Here the wind is very variable; sometimes light airs and calms succeed S. E. winds; sometimes a N. N. E. wind has been known to blow for months, and sometimes heavy squalls will set from the westward.

The Island of Ascensao is said by a Portuguese mariner to lie in latitude $20^{\circ} 46' S.$ and longitude $35^{\circ} 08' W.$ and by him thus described: He states it to be high, having a cove on its north side, with fresh water; off its western side are five small islands or rocks, one of which stretching far out to seaward, appears like a ship under sail. Fish and wild fowl are there in abundance, but modern navigators deny the above situation for this island, and altogether doubt its existence.

General directions for leaving Rio Janeiro, and bound to the River Plate.

IN leaving Rio Janeiro, you must endeavour to get an offing of from 16 to 20 leagues, where you will have 60 to 70 fathoms, but as you get to the southward, into the latitude of 30 and 31 deg. south, you will have not more than 35 to 40 fathoms, twenty leagues distant from the land, and by standing on S. by W. or

S. S. W. you will perceive the water shoal to 14 and 12 fathoms, at about 16 or 18 leagues from the land. Large ships should not get less than 16 fathoms, especially between Rio Grande and the Great Castillos, a point 3 or 10 leagues north of Cape St. Mary's, as there are many shoals and banks with only 5 and 6 fathoms, although they lie 10 or 12 leagues off the land. In bad weather a great swell breaks over them, which is dangerous even to small ships. Coming from Rio Janeiro to the River Plate, His Britannic Majesty's ship Samson had only 4 and 5 fathoms, rocky ground, in the latitude of 33 deg. 30 min. though, at the time, the land in clear weather could not be seen. Steering south, the water deepened to 16 and 18 fathoms, and to the southward of 34 deg. steering S. W. by S. the water still deepened, the bottom mud. When you are in latitude 34 deg. 30 min. or 35 deg. S. and have from 20 to 22 fathoms, should the weather be fair, and the wind northeasterly, haul in for Cape St. Mary's, which is in the latitude of 34 deg. 58 min. S. and longitude 54 deg. W. steer in W. by S. until you get into 16 fathoms, and if the weather should be clear, you will discern the land a little to the northward of the cape; but should you be in the latitude of the cape with hazy weather, and only 16 fathoms, steer S. S. W. or S. W. by S. until you get into the latitude of Lobes, keeping in from 16 to 20 fathoms; if more than 20, steer westerly; but if less than 16, steer southerly. Being between the Point Castillos and Cape St. Mary's, the water decreases suddenly, and must be cautiously approached. When in the latitude of Lobes, and having 22 fathoms, steer west, which course will carry you clear about a league south of Lobes, and by not letting your water be less than 18 fathoms, nor more than 22, you will ascertain to a certainty that you are to the southward of Lobes, and to the northward of the English Bank. Standing on to the westward do not get into more than twenty-two fathoms, particularly when you are to the westward of Lobes, from Lobes to Flores island, you will have between 17 and 7 fathoms, in a direct line between the two islands, the soundings being very regular as you approach Flores. The proper channel is with a ground of soft clay; but sand intermixed with stones, shells, and gravel, is a sure sign of your being in a parallel with the English Bank; and should you meet with brown sand, or mud, or clay, you will be to the southward of the English Bank. When near Flores, your depth is the same to the northward as to the southward, but the ground is harder to the former than the latter; therefore when you find hard ground, alter the course southerly. Pass Flores to the southward, because of a ledge of rocks stretching out $3\frac{3}{4}$ of a mile from its northern point, having no more than 2 fathoms in several places; if with a line of battle ship, come not nearer than a mile of Flores' southern part, unless the wind is scant, and you are desirous of hauling for a weatherly anchorage, with E. or S. E. winds, in which case you may near it to about $\frac{1}{4}$ of a mile, when you will have $5\frac{1}{2}$ and 6 fathoms. Bring the south point of the island S. E. by E. $\frac{1}{4}$ E. and the north point E. by N. $\frac{1}{2}$ N. and you will have from 5 to $5\frac{1}{2}$ fathoms; this is the best anchorage for large ships: you will be near a mile from the island, and have a muddy bottom. S. W. $\frac{1}{3}$ W. $\frac{3}{4}$ of a mile from the south part of the island, is a shoal with only 23 feet water upon it, on which His Britannic Majesty's Ship Reasonable struck, but got off without damage. Mr. Oakes, Master in the British Navy, says of this shoal, that it is a rock extending nearly E. S. E. and W. N. W. about a cable in length, and $\frac{1}{2}$ in breadth, being distant from the island about $\frac{3}{4}$ of a mile, its least water 4 fathoms, and that part of it, not above 5 fathoms in circumference: the other parts of the shoal were $4\frac{1}{2}$ fathoms, at $\frac{1}{4}$ less 5, he was off the rock in muddy bottom. In the shoalest part the following bearings were taken; the outer point of the rock of the N. W. end of the Island Flores, E. by N. $\frac{1}{2}$ N. The extreme point of a low edge running toward the main from the same end of the island, on with the saddle of the N. E. hill on the island, bearing N. E. $\frac{1}{2}$ E. The N. E. point of the island N. E. $\frac{1}{2}$ N. nearly, and the Mount west. On the east of the Flores island is no good anchorage. Going from Flores toward Monte Video, steer W. by S. or W. by S. $\frac{1}{2}$ S.; you will then avoid a dangerous shoal, having only 11 feet water. This lies off the Gorrits rocks. (It is thus described by the Sarah of London, which

struck and remained on it 8 hours. It lies from N. W. to S. E. is about two thirds of a cable in length, and one fourth of a cable in width, having only 11 feet on its shallowest part, and 5 fathoms all round. The bearings taken on board while aground, were the N. E. part of Goritta rocks N. W. $\frac{1}{2}$ N. distant 2 miles; highest part of Maldonado mountains, N. E. by E.; the south point of Flores E. $\frac{3}{4}$ S. Goritta rocks near the main, W. by N. $\frac{1}{2}$ N. and point Braba, W. $\frac{1}{4}$ S. E. N. E. from Point Braba, is another shoal, dangerous, and nearly on a level with the surface of the water; round it you will have $2\frac{1}{2}$ fathoms water at the distance of 2 cables' length. The bearings on this shoal are, Point Braba, W. S. W. about 2 miles, Goritta Point N. E. by N.; the centre of the white sandy bay, N. W.; easternmost Farm House, west of Goritta Point N. $\frac{1}{2}$ W. Inside this shoal is a good channel, and between it and the point is anchorage to the N. E. of the shoal in $2\frac{1}{2}$ fathoms. Observe Point Braba will bear S. W. or S. W. by S., and at the distance from the shore of about one mile, you will lie well sheltered from the W. and S. W. winds, with room enough for 50 sail to anchor; there are $2\frac{1}{2}$ fathoms for a mile and a half or 2 miles round the bay.) Continue this course until you bring the mount to bear N. W. by W. or N. W., then haul in for the harbour or the men of wars' anchorage which is about 5 miles from the Tower; (the mount will then bear N. W. by N. and the town of Monte Video north,) in 4 and $4\frac{1}{2}$ fathoms, muddy ground.

Directions for Monte Viedo.

This harbour can contain 200 sail, well sheltered from all winds but those from the south, to the S. W.; these winds are generally accompanied with a great sea, especially when it blows fresh. Abreast of Fort Philip, the depth of water is from $3\frac{1}{2}$ to 3 fathoms; and in the best anchorage of the harbour from $2\frac{1}{2}$ to 2 fathoms, all soft mud except near Rut island, where it is foul; and a rock at most times above water, having a pole fixed on its top. In sailing in from the eastward, you should give the point at the S. W. part of the town, a birth of at least $\frac{1}{4}$ of a mile; you will thereby avoid several sunken rocks, scattered about the point and off Fort Philip; and as soon as you get the north part of the town to bear east, haul in, and bring the Jetty, or landing place S. S. W. about $\frac{1}{4}$ of a mile distant: you will then be in the best anchorage, and have 14 or 16 feet water, with moderate tides; the bottom is of soft mud: moor head and stern to the S. W.

Remarks concerning the Winds, Weather, Tides, or Currents, Soundings, &c. in the River Plata, with a few Instructions for Navigating therein.

AT the entrance of the Plata, the prevailing winds, during the summer months from September till March, are north-easterly, with tolerable clear weather overhead, but a dense atmosphere near the horizon. These winds haul gradually to the eastward as you advance up the river; and about the full and change of the moon, strong breezes from the south-eastward are common at this season, accompanied with rain and foul weather. Up at Buenos Ayres, during the summer months, the S. E. winds are fresh generally in the day time, hauling round to the northward in the night.

During the winter months from March till September, the prevailing winds at the entrance of the Plata are S. W. or more westerly; but up the river, more generally from the northward than the southward of west.

The winter season is best in point of weather, at Buenos Ayres; for the winds being chiefly from the N. W. to S. W. the water is smooth, and the communication can be kept up between the shore and shipping with more facility. The weather is sometimes, but not frequently, foggy:—fogs are most common in the months of July, August and September, and prevail more at the entrance of the river, as far up as the S. E. tail of the Ortez, than up above the banks.

As it cannot be said that there are regular tides in the Plata, but currents, as uncertain in their duration as they are irregular in their rate and direction; no certain allowance can be made for them, and therefore a ground log should always be used, to know the course made good, and distance run.

The tides, speaking generally, when the weather is fine and settled, and the winds moderate, do not, in any part of this river, rise or fall more than five or six feet; though up at Buenos Ayres, at the distance of eight miles from the city, we had, when the winds were strong at N. W. as little sometimes as fifteen feet water; and with strong breezes from the E. S. E. to S. S. W. the depth was upwards of five fathoms; but, except on such extraordinary occasions, we had between 17 and 22 feet water. I have heard, however, some marvellous stories of the river having been almost dried up, across from Buenos Ayres to Colonia, during heavy westerly gales.

The River Plata has many singularities, though I think they may, in a great measure be accounted for from its formation being so different from any other known river: Its entrance being very wide and very shallow, it is affected by every change of wind in a most extraordinary manner; so much so, that a shift of wind may be predicted to a certainty almost, by carefully observing the state of the mercury in a barometer, and the set of the currents, as they usually shift before the wind. In calm weather the currents are generally very slack, and then as regular almost as tides, setting up and down the river alternately. When the winds are variable the currents are equally so; and I have known the ship to be current-roded four different ways in less than six hours. When the current comes in from the eastward along the north bank of the Plata, a north-easterly wind may (generally) be expected to follow; and, at the same time, (should the wind have been previously to the S. E.) the mercury in the barometer will fall a little; but much more if the transition be quick from south-west without stopping on the south-eastern board.

When the wind continues in the N. E. quarter, the mercury is more depressed (comparatively speaking as to its strength,) than with any other wind, and there is usually then a set into the river on the north bank, and out on the opposite; indeed, whilst the winds are between N. E. and S. S. E. the current generally runs up to the westward, past Monte Video, though without much augmenting the depth of water off that place, but filling the river up above the banks.

The winds between N. N. E. and W. N. W. make the water lowest, the outset being then strongest along the south bank of the river past Point del Indio and Point la Memoria, but very inconsiderable along the north bank.

Before the setting in of a S. W. gale, or pampero, the weather is usually very unsettled, and the winds unsteady and variable in the northern and north-western boards, and preceded by a considerable fall in the mercury, though it usually rises a little again before the wind shifts to the south-west; and often continues to rise, even though the wind may increase from that quarter.

Before these winds set in at Buenos Ayres, the current runs up and fills the river unusually high; at the same time, as strong an outset is experienced along the north bank, which continues whilst the winds are strongest from the W. S. W. to S. seeming to prove that these winds force up from the southward a large accumulated body of water past Cape St. Antonio, which can only find a passage out again by the north shore, where they increase the depth of water, as well as up the river; and, particularly the shallow harbour of Monte Video. Whilst these S. W. winds blow, the air is cold, and the atmosphere clear and elastic, in a degree rarely to be met with in any other part of the world. They are generally succeeded by some days of fine serene weather; the wind continuing moderate from the southward, or varying to the eastward.

I have never known the velocity of the tide or current in the River Plata, any where to exceed three knots per hour; but I have heard it said by some, that they have found it run at the rate of six or seven miles an hour.

As the winds outside the River Plata, and particularly about Cape St. Mary's, are most frequently from the north-westward and northward, except when the

S. E. summer and S. W. winter gales blow, about the times of new and full moon, I consider it, on the whole, most advisable for ships bound into the river, to get in with the land about the latitude of that cape, which is $34^{\circ} 40'$ S. and its longitude $53^{\circ} 54'$ W. of Greenwich, or $2^{\circ} 0' 9''$ E. of Monte Video.

In latitude 33° S. the bank of soundings extends off the land full 36 leagues; where the depth of water in longitude $50^{\circ} 20'$ W. is 94 fathoms, the quality of the bottom dark olive coloured mud, as well as all along the outermost verge of the bank.

In latitude 34° S. and 30 leagues from the land, the bank is steep and the soundings decrease quickly in standing to the westward, to 25 fathoms, 20 leagues off.

In latitude $34^{\circ} 20'$ S. and longitude $51^{\circ} 50'$ W. or about 30 leagues east of the Great Castellós Rock, the depth is 63 or 64 fathoms, and the bottom dark mud. In standing in for the land, between the Great Castellós and Cape St. Mary's, the water shoals in a short distance from 60 to 25 fathoms, and the quality of the bottom changes to sand, which grows coarser as you approach the coast, and as far as seven leagues off shore is intermixed with shells. This bottom is found only in, and to the northward of the latitude of Cape St. Mary's except very close in with it.

To the southward of $34^{\circ} 40'$ S. the bottom is chiefly mud, intermixed with fine sand or gravel; and if a ship happens to be set to the southward of Cape St. Mary's, as she hauls in for the land, yet keeps to the northward of Lobos, she will get out of fine sand into dark mud, which is the quality of the bottom (chiefly) between Cape St. Mary and Lobos, as well as eight or nine leagues to the eastward of that island; and the depth of water generally between them, 26 and 20 fathoms.

In latitude 35° S. and longitude 52° W. or 42 leagues true E. of Lobos, there are about 90 fathoms water, dark sandy bottom, from whence the bank of soundings takes a S. W. direction.—East of Lobos 27 leagues, the depth of water is 25 fathoms, and in steering in, on its parallel, the same depth nearly continues till very near that island. But if you should be set a little to the southward of Lobos, you will shoal the water to as little even as 10 fathoms perhaps, on a hard sandy or gravelly ridge, that extends all the way from the English Bank, in its parallel as far as longitude $52^{\circ} 30'$ W. or full 18 leagues to the eastward of the meridian of Lobos.

Thus the approach to this river cannot be considered dangerous, if proper care is taken in navigating, and due attention paid to the lead and to the course steered.

I shall here insert the Honourable Captain Bouverie's description of Cape St. Mary, &c. which I believe to be very correct, and his directions are judicious:—

“Cape St. Mary is a low point, with rocks all about it. The direction of the coast to the westward of it becomes more westerly than at any other part to the northward of it: About six miles north of it, is a house, with a row of trees just to the northward of the house, (probably a fence of high prickly pear bushes) which is very remarkable.”

“About a mile south of the house is a bluff point, with a few rocks at the foot of it, which is remarkable, as being different from the rest of the coast; the general character of which is a sandy beach. One cannot fail of knowing the Cape by these marks, if you run down the coast near it; if you are at any distance off, you will not perceive them. The water off Cape St. Mary is shoaler than to the northward of it. Off the Cape, in a S. E. direction, you have $8\frac{1}{2}$ fathoms at the distance of four or five miles.”

I am inclined to think Capt. Bouverie may have been somewhat deceived in his estimation here; for I found more water at the distance he mentions. On the 17th November 1810, at noon, observed, in latitude $34^{\circ} 42'$ S. and longitude about $2^{\circ} 20'$ E. of the Mount Video, had light winds for S. by W. and fine weather; at half past one P. M. tacked in 23 fathoms to stand in shore, and carried from that depth to 18 fathoms, when sights were taken for the Christo-

pher, which made $2^{\circ} 13' 21''$ E. of Mount Video, Cape St. Mary's bearing N. 66° W. and standing on, laying up W. and W. by N. tacked in $12\frac{1}{2}$ fathoms water, the prickly pear hedge mentioned by Capt. Bouverie being on with Cape St. Mary's, (which is formed by a low rocky islet nearly joining the shore,) bearing N. by compass, and the breakers stretching to the S. E. of the Cape N. 7° E.; about three miles was our distance from the Cape. Capt. Bouverie, in continuation, says, "To the northward of it, (the cape) between it and Palma you have 10 or 11 fathoms at a little distance from the shore.

"Ships in general make the land with N. or N. E. winds; therefore it is best to keep in the Cape's latitude, or to the northward of it something, till you get soundings, as the current sets to the S. W. It is better not to make the land north of the Cape; not that I believe there is any absolute danger, but the water in many places is shoal a long way off the land, and would alarm any one not acquainted with that circumstance.

"In latitude $33^{\circ} 27'$ S. and longitude $52^{\circ} 09'$ W. is a shoal where we found 9 fathoms water. I believe it is a ridge running in that parallel of latitude, all the way to the shore. In latitude 34° S. is some tolerably high land, on which is a Spanish fortress, called Fort Teresa. It is a square with bastions at the angles; it has three guns in the faces and one in the flank, and stands about a mile from the beach. About six leagues N. N. E. from it, is a mark set up, as the termination of the Spanish territories.

"Being in latitude of Cape St. Mary, and got ground in 28 or 30 fathoms water, fine sand and shells, you may reckon yourself 20 leagues off shore; with from 15 to 20 fathoms, sand and clay mixed, you are not far off the land. When you have not seen the land before night, be sure to keep to the northward of the cape by your reckoning, to allow for the current, which sets to the southward.—This is the case with the above-mentioned N. and N. E. winds: with S. and S. W. winds, the current runs strong the other way."

I am inclined to think that the strong north-easterly currents which are to be met with, off the mouth of the Plata when the wind is about to blow, or blowing, from the south-westward do not extend much, if at all beyond the bank of soundings.

Agreeing in opinion with Capt. Bouverie that, generally speaking, it is advisable to make the land about Cape St. Mary, I would also recommend, if the wind should be any where between S. E. and N. N. E. to enter the river on the north side of the English Bank, passing Lobos on either side, according to the wind and state of the weather. There is a good passage between Lobos and the Main, having 17 to 14 fathoms water.

The island of Lobos is in latitude $35. 01.$ S. and longitude $54. 39.$ W. or $1. 24.$ E. of the Mount Video. It bears about S. W. by the world from Cape St. Mary, distant 41 miles. The variation off it is 13 easterly.—(1813.)

When within three or four leagues of Cape St. Mary, in 17 or 18 fathoms, S. S. W. by compass, is a fair course to steer for passing outside of Lobos in the night-time; for with the wind from the eastward or N. E. the set along shore into the river must be guarded against. Steering this S. S. W. course, the depth of water will increase to 20 and 22, and some casts perhaps of 25 or 27 fathoms, (if you are set neither to the westward nor the southward of it,) and the bottom will change, first to sandy mud, and then to dark blue mud, as you approach the latitude of Lobos.—If you are set to the southward, in steering S. S. W. you will not deepen so much; the bottom will keep sandy; and when you approach the latitude of Lobos, you will have no more than 19, 18, and 17 fathoms; but if you are set to the southward of Lobos a few miles, you will have hard casts of from 16 to 10 fathoms, and may rest assured of being on the parallel of the English Bank, and may therefore make a west-northerly course true, till you find the bottom soften, as it is all dark blue or greenish mud in the channel between the foul ridge of the English Bank and the north shore, all the way up to Monte Video in the fair way from Lobos. When off Lobos, if the weather threatens, and it should be likely to blow, a ship will find safe anchorage in the harbour of Maldonado, sheltered from southerly winds by the island of Goretta,

which bears N. 42. W. true, 11 or 12 miles from Lobos. As I have never been in Maldonado myself, I shall insert here what Capt. Bouverie says about it.

“The Spanish surveys of this bay lay down a sufficient depth of water for any ship between every part of the island and the main; however it cannot be safely entered but by small vessels, except to the westward, and you must not go farther in than to bring the N. W. point of Goretti to bear S. S. W. $\frac{1}{2}$ W. or S. W. by S. by compass, with four and a half or five fathoms, good strong clay. With southerly winds there is in the east passage a heavy swell; and the water, from the ground being uneven, breaks almost the whole way across, in bad weather—the Diomede, (50 gun ship) passed through it to the anchorage before its dangers were known, and had not less than 18 feet; but there are places where there is as little as $1\frac{1}{2}$ fathom, and it is very irregular. There is a bed of rocks to the south of Goretti; the marks for it are—

“The tower of Maldonado, N.

“And the outer part of Point del este, E. N. E. $\frac{1}{2}$ E.

“In the direct line of the entrance of the bay from the westward is a bed of rocks where there are parts having only three, and one quarter less three fathoms; the bearings taken on the rocks are—

“N. E. Point of Goretti E. $\frac{1}{2}$ S.

“N. W. Point of Do. E. by S. $\frac{1}{2}$ S.

“S. W. Point of Do. S. E. by S.

“Point Ballena W. by N. $\frac{1}{2}$ N.

“The hill of Pan de Azucar just within the entrance of Point Ballena.

“In mid-channel, between these rocks and the island, is $6\frac{1}{2}$ and 7 fathoms; their distance from the island is about three-fourths of a mile. There are 7 fathoms close to them all round the western side. The watering place is on the main, close by a battery: the stream loses itself in the sand, except when swollen by heavy rains, and you have to roll your casks about 60 yards over the sand. The water is very good.”

Having Lobos bearing N. by W. of you by compass, distance three or four miles, you will have about 18 fathoms; and in making a compass course W. $\frac{1}{2}$ S. by ground log, (having due regard to the wind and current at the time,) you will make the island of Flores a-head of you. In this track your soundings will gradually decrease from 18 to 12 fathoms, due S. of Black Point, and to 7 or 8 fathoms when you approach within 9 or 10 miles of Flores.

Though Capt. Bouverie says “You may run quite up to Monte Video, either by night or day, by making a due west course, first trying the current to make allowance for it;” and though I have frequently done it myself, yet I would not recommend it as a general rule to be followed by strangers to the River Plata. Great care and attention to the course made good and to the soundings, are indispensably requisite in those who attempt to conduct vessels during the night in any part of this river, and even these have been but too often insufficient to save ships from destruction. But in merchant vessels I fear we cannot always expect to find even those qualities; and therefore I withhold my opinion of its being adviseable for them to run in the night: neither can it be done by men of war without some risk.

Flores bears by the world W. 4° 30' N. from Lobos, distant 52 miles. It lays nearly N. E. and S. W.; has a small hummock in the middle, and one at each end, that to the S. W. being 39 feet high. Between these the land is low and marshy, and overflowed sometimes between the central and N. E. hummock. It may be seen at the distance of five or six leagues from a ship's deck in clear weather. There is good anchorage all round this island; but a reef extends in a N. W. direction from the north point about a mile. Seals and sea lions, and various aquatic birds resort to this small island, as well as to Lobos; and in the months of August and September, great quantities of very excellent eggs may be procured. With the wind easterly boats may land on the western side of Flores, particularly in a small cove very near the S. W. part of the island. From Flores, W. N. W. the Cautas Rocks (above water) are distant about five miles; and there are five fathoms between

them and it. True S. at the distance of 11 miles from Flores, is the north part of the English bank, on which in that latitude $35^{\circ} 08' S.$ there are about $1\frac{1}{2}$ feet water. The depth of the water between Flores and the English bank is seven fathoms, all the way across to within a very little distance of both. The English Bank in latitude $35^{\circ} 12'$ generally breaks, and with a low river, is above water in some places. Its extent to the southward has not yet been accurately defined; and for 70 or 80 miles to the south-eastward of it, the ground is said to be foul and uneven, and has not been explored. Between the Archimedes and the English Bank, there is a swatch of five fathoms water, (according to Capt. Beaufort, of the R. N. who explored these banks in 1807,) and as many miles wide.

The shoalest part of the Archimedes Bank, about $2\frac{3}{4}$ fathoms, is four miles in extent, about north and south by compass; and there are four fathoms all round it. The centre of it is in latitude $35^{\circ} 12'$ and the Mount Video bears N. $22^{\circ} W.$ by the world, from it, distance 20 miles. Besides this bank there is a small knoll in latitude $35^{\circ} 14' S.$ which is true S. from Monte Video 21 miles, and has not more than $3\frac{1}{2}$ fathoms water on it, and about four fathoms all round it.

Passing to the southward of Flores, at the distance of a couple of miles, you have $6\frac{1}{2}$ or 7 fathoms, and may steer W. $\frac{1}{2}$ S. by compass, to pass Point Braba, which bears true W. $4^{\circ} N.$ distant four leagues from the S. W. end of Flores. This point is bolder to, than the land to the westward between it and the town of Monte Video, and may be passed close in $4\frac{1}{2}$ or 5 fathoms, at a mile or a mile and a half distance. The best anchorage for a frigate off the town of Monte Video is with Point Braba, bearing by compass W. by N. $\frac{1}{2}$ N. the Cathedral N. E. by N. and the mount about N. W. by N. in $3\frac{1}{2}$ or 4 fathoms, two miles or more from the town, with the harbour quite open. The bottom is all soft mud.

The harbour of Monte Video is very shoal, having only from 14 to 19 feet water; but the bottom is so very soft, that vessels receive no damage by grounding there. Capt. Bouverie says,—

“A S. S. W. wind which blows right into the harbour, and causes a good deal of sea, always occasions the water to rise a fathom or more. In a long continuance of fine weather, the tides sometimes assume the appearance of regularity; but this is not often the case. They are governed entirely by the winds: The winds from the southward cause the water to run out on the north shore strongest. Fine weather and N. W. wind make the water lowest. It is usual in Monte Video harbour to have an anchor to the S. E. and another to the S. W. and to take one in abaft from the northward, for the water forced in by the southerly wind sometimes rushes out with astonishing rapidity: when the anchor to the N. is of the greatest service.”

The Mount Video is in latitude $34^{\circ} 53' S.$ and longitude $56^{\circ} 03' W.$ of Greenwich, being $1^{\circ} 24' W.$ of the island of Lobos, and $2^{\circ} 10' E.$ from the Cathedral of Buenos Ayres; on the summit of this Mount is a fortified building, whose base is 42 feet 6 inches by 20 feet, used sometimes for a light-house. The diameter of the lantern is 10 feet 6 inches, and its elevation above the level of the sea 450 feet. At the base of the Mount are several runs of excellent water, particularly in two small smooth sandy bays on the S. W. part of it, where ships in the outer roads may supply themselves with ease; and another on the E. side of the Mount, just abreast Rat Island, adapted to ships in the harbour.

Giving the preference to the passage on the N. side of the English Bank, especially when the wind is any where between S. S. E. and N. N. E. on passing Lobos, because it may be expected most probably to shift, if it does at all, round by N. to the westward; though perhaps not before that wind and the inset together might carry a ship up to Monte Video: yet if the wind should be to the north-westward at the time of making the land, it may pretty confidently be expected to shift next to the westward, or S. W. and therefore a ship should not strive to beat up round Lobos and the north channel against an outset, but stand at once over towards Cape St. Antonio, where, by the time she could stretch across, she would most likely find a S. S. W. wind and N. W. current

to run up with along a weather shore to Buenos Ayres, or to Monte Video if bound thither, passing to the westward of the Bank of Archimedes in about five fathoms water; or, if the mount should be seen in good time, endeavor to bring it to bear to the westward of north by compass, till within five leagues of it.

In standing to the southward from abreast of Cape St. Mary with the wind south-westerly, a ship will have from 18 to 24 or 25 fathoms, when in the latitude of Lobos, and about 12 or 13 leagues to the eastward of it; and making a S. S. E. course, the water will then shoal to 18, 16, 12, or 11 fathoms in crossing the ridge which is generally composed of sand, grey specked mixed with stones hereabouts, after which the depth increases gradually to 35 or 36 fathoms, over a sandy bottom, in latitude $35^{\circ} 40' S.$ and longitude $53^{\circ} 25' W.$ In the latitude of $36^{\circ} S.$ and 15 or 20 miles farther to the eastward you will deepen off the bank entirely. A ship having got to the southward as far as $36^{\circ} S.$ may consider herself in the fair way for proceeding up on the south side of the English Bank; and if the wind serves, a true west course may be made good.

In latitude of $36^{\circ} S.$ the depth of water on the meridian of Cape St. Mary is 38 fathoms, and the bottom fine grey sand like ground pepper. Keeping still to the westward, on that parallel of $36^{\circ} S.$ the depth decreases to 19 or 18 fathoms true south of Lobos, and for 10 leagues farther you have from that to 15 fathoms. But if from the latitude of $36^{\circ} S.$ on the meridian of Lobos you make a W. by N. or W. by N. $\frac{1}{2}$ N. course true, you will shoal the water to 8 or $7\frac{1}{2}$ fathoms in latitude $35^{\circ} 45' S.$ on the meridian of the English Bank. The quality of the bottom generally is sandy, mixed with small stones, the nearer you approach to the ridge of the English Bank the same is intermixed with bits of shells and sometimes with clay or mud.

From latitude $35^{\circ} 45' S.$ due S. of the English Bank, a W. N. W. true course to latitude $35^{\circ} 33' S.$ will bring the Mount Video to bear N. by the world, in about $6\frac{1}{2}$ fathoms, the bottom mud, at the distance of 13 leagues from Point Piedras: and from this position the same true course may be made to raise the land about Point del Indio, if bound up to Buenos Ayres; or N. W. or more northerly to get sight of the Mount Video; having due regard to the set of current up or down the river, that you may neither be horsed on the S. E. tail of the Ortiz Flats nor on the western part of the Archimedes Bank. The bottom above this is soft mud or clay in the channels, fit for safe anchorage. In latitude $35^{\circ} 30' S.$ or thereabouts, and due S. of the Archimedes Bank, or some miles farther to the eastward, I have been told by some persons they have had as little as 4 fathoms, hard ground.

Ships leaving Monte Video to proceed up to Buenos Ayres must be very attentive to the lead, and the course steered across the river must be very carefully regulated by the set of the current at the time. If the weather is sufficiently clear the Mount is the most sure guide, keeping it by an azimuth compass on the magnetic bearing N. E. by N. and when it sinks to an eye in the top, a more westerly course may be steered to raise the land about point del Indio. This direction is intended to apply particularly to frigates, or ships drawing more than 16 feet water, because it is not advisable for them to cross the tail of the Ortiz Flats much farther to the westward than a true south west course from the Mount will take them; for with a low river I have had barely $3\frac{1}{4}$ fathoms in the Nereus, with the Mount bearing N. $35^{\circ} E.$ by compass, distant 10 leagues. At other times I have sunk the Mount on a N. $53^{\circ} E.$ magnetic bearing, and had as much as $3\frac{1}{2}$ fathoms water; but the river was then well filled.

On the southeastern part of the Ortiz Bank, which is there hard stony sand, there is still remaining (in 1813) part of a mast or beacon about 12 or 13 feet high. It is in latitude $35^{\circ} 02' 15'' S.$ and $0^{\circ} 45' W.$ of Mount Video, from which it bears W. $14^{\circ} S.$ by the world 37 miles. There are about 12 or 13 feet alongside of it; three fathoms, two miles to the eastward of it, but not more than 10 or 12 feet as far as three miles S. W. of it. Point del Indio bears true S. $33^{\circ} W.$ 16 or 17 miles from it.

For the distance of full 17 miles to the southeastward of the Ortiz Beacon, there are generally no more, and often less, than $3\frac{1}{2}$ fathoms; the bottom tough

clay nearest the bank, and in some places farther to the southeastward, soft mud, and not more than $3\frac{1}{4}$ fathoms.

After sinking the Mount about N. E. by N. and having $3\frac{1}{2}$ fathoms, a W. S. W. course will raise the land (if the weather is clear) about Point del Indio to the eye at the mast head, and probably you will not have more than $3\frac{1}{4}$ or at best $3\frac{1}{2}$ fathoms. The Mount and land near Point del Indio are sometimes visible at the same time.

Point del Indio is in latitude about $35^{\circ} 16'$ S. and $0^{\circ} 56'$ W. of the Mount Video, from which it bears S. 63° W. by the world, distant 50 miles. There is little more than three fathoms at the distance of 10 or 11 miles, when the river is in a mean state; farther to the southward and off Point Piedras, there is only that depth full 14 or 15 miles off shore. Very great caution therefore is required in approaching it, and a constant lookout should be kept for the land, as it is very low, and cannot be seen farther than 12 or 13 miles in any weather from the deck of a frigate.

When the land is barely raised to an eye 19 or 20 feet above the surface of the water, a W. N. W. magnetic course will lead along shore between it and the south part of the Ortez, which is distant about 14 miles from it, and between them there is no where more water than three and a half, but mostly $3\frac{1}{4}$ fathoms. With a high river I have had one quarter less four fathoms. The nearer the Ortez the deeper the water.

In steering up W. N. W. with the land seen from the deck (if clear weather) you will have $3\frac{1}{2}$ or $3\frac{3}{4}$ fathoms, (yet if the river is low, perhaps some casts of three fathoms,) and raise a remarkable clump of trees, called Embudo, which are much taller than the rest, highest at the west end, and lay in latitude $35^{\circ} 6'$ S. and in longitude $1^{\circ} 16' 30''$ W. of the Mount Video, or $0^{\circ} 57' 30''$ E. of the Cathedral of Buenos Ayres. At some distance to the westward of the Embudo Trees, there is another clump about the same height as them, but they being highest at the east end, are sufficiently distinguished not to be mistaken for the true Embudo.

When in $3\frac{1}{2}$ or $3\frac{3}{4}$ fathoms, the Embudo trees bear by compass W. S. W. the S. E. end of the Chico Bank will bear W. N. W. or thereabouts, 10 or 11 miles from you; and you must now determine, from the water your ship draws and the then direction of the wind and state of the weather, whether you will pass between the Chico and the shore, or between the Ortez and the Chico.—I have passed up and down several times between the Chico and the south shore, in the Nereus, lighted in her draft to 18 feet 3 inches, but I would never attempt it again from choice now I am better acquainted with the middle channel between the Chico and Ortez, and have every reason to believe that the middle ground some charts lay down, does not exist.

A ship not drawing more than 15 feet may take either passage, and of the two ought perhaps to prefer that to the southward of the Chico Bank, particularly if the wind should be well to the southward, as she might take her soundings from the weather shore, and keeping in somewhat more than her own draft, run up along it; and by not deepening above three fathoms, would ensure being to the southward of the Chico.

The S. W. end of the Chico Bank bears from the Embudo trees N. 32° E. true, distant 10 miles, and E. 9° N. 13 miles from Atalaya Church. Its latitude there is $34^{\circ} 56' \frac{1}{2}$ S. and longitude $1^{\circ} 9'$ W. of the Mount Video. This bank runs in the direction of N. 52° W. true, or N. 65° W. by compass, about 13 miles to its N. W. end, which is in latitude $34^{\circ} 48' 50''$ S. and $0^{\circ} 47'$ E. of Buenos Ayres Cathedral. From this N. W. end, in 14 feet water, Atalaya Church bears S. 14° W. distant 11 miles; and Point St. Iago forming the Ensenada de Baragan, bears W. 4° N. 14 miles from it. The breadth of the Chico does not exceed two miles, or perhaps a mile and a half, and its inner edge is about nine miles from the shore. The water between the shore and it, is no where more than $3\frac{1}{2}$ fathoms, and the deepest water is along the inner edge of the shoal, at the distance of half a mile from it, or less in some places. About mid-way between it and the shore there is one quarter less three fathoms. On

some parts of the Chico there is very little water, and within the limits I have assigned to it, no where more than 14 feet. There was for some years the mast of a vessel called the Pandora, which was wrecked on this shoal, in latitude $34^{\circ} 54'$ S. about 5 miles from its S. E. end, and proved an excellent beacon to guide ships passing it on either side, but it has now unfortunately disappeared. It is very necessary that three buoys should be placed on this dangerous shoal, to mark its centre and each end.

To ships drawing less than 15 feet it is only further necessary to recommend care and attention on approaching Point St. Iago, which forms bushy and distinct, and when it is brought to bear to the south-westward, haul out into the stream of $3\frac{1}{2}$ fathoms to round outside the Spit, which runs about N. W. by compass, from point St. Iago at least 10 or 11 miles; its extreme point in two fathoms being about five miles from the shore. When two remarkable trees on Point Lara are brought to bear S. by E. $\frac{1}{2}$ E. or S. S. E. by compass you are past the Spit. This mark will also lead a ship of that draft of water clear to the westward of the Spit, in running in toward Ensenada.

After passing the Spit off Point St. Iago in $3\frac{1}{2}$ fathoms, a W. by N. northerly course by compass will lead up to the outer road of Buenos Ayres, where any ship may safely anchor in the water she draws, if the river is low.

Frigates or any vessels drawing more than 16 feet water, should barely raise the land about Point del Indio to the eye on deck, and borrow nearest the Ortez, more particularly when the Embudo trees are brought to bear as far as S. W. by W. (magnetic) for with the Embudo bearing S. W. to S. S. W. the bottom is flat off to three fathoms full seven miles from the shore, and chiefly hard clay.— Therefore when the Embudo trees bear W. S. W. by compass, and you are about 9 or 10 miles off shore, in $3\frac{1}{2}$ fathoms, if you have a leading wind, haul to the N. W. by W. or more northerly, as may be required to clear the S. E. tail of the Chico, and you will soon deepen your water to four fathoms and more, in the middle channel, between the Chico and the Ortez Shoal. The fair course through between them is about N. W. by W. $\frac{1}{2}$ W. magnetic, and in mid channel the land can but just be distinguished from the quarter deck of a frigate. When the Embudo trees bear S. 20° W. by compass, you will be abreast of the S. E. end of the Chico, and may either take your shoal soundings along its northern outer edge, to about quarter less four, if the wind is southerly; or if the wind be northerly or easterly, borrow into a convenient depth along the southern edge of the Ortiz. I believe the breadth of this middle channel may be five or six miles, and the depth of water from 4 to $5\frac{1}{2}$ and even 6 fathoms, in the fair way, about the N. W. part of it, and abreast that end of the Chico. The quality of the ground all the way through this channel is generally soft mud, and fit for safe anchorage.

The N. W. pitch of the Chico Bank being passed, and the depth of water 5 or $5\frac{1}{2}$ fathoms, you may steer by compass W. by N. $\frac{1}{2}$ N. or W. by N. for Buenos Ayres, taking care not to shoal under one quarter less four off Ensenada till Point Lara Trees bear S. S. E.

A little more than half way from Point Lara to Buenos Ayres there are two other remarkable trees. When moored off Buenos Ayres in the Nereus in 19 feet water, and the bottom soft mud, these trees bore by compass S. 17° E. the Cathedral S. 67° W. and the spire of the Recoleta Convent S. 76° W.; the latitude observed was $34^{\circ} 34' 30''$ S. and the longitude by Moon $58^{\circ} 02'$ W. of Greenwich. Variation of the compass $12^{\circ} \frac{1}{2}$ easterly, at the distance of eight miles from the Cathedral.

Directions for Maldonado Roads, and for going in and out, round the Island Goritta.

COMING from the northward, between the Lobes and the main, and bound to Maldonado roads, give the point of Maldonado a berth of more than a mile, on account of a shoal lying off it, having for its least water only 5 or 6 feet, and

at 2 cables' lengths, $2\frac{1}{2}$ and 3 fathoms. Standing in from the northward and eastward, bring this point of Maldonado to bear north, and haul in for the west point of Goritta, taking care to have no less than 8 fathoms water, until you bring a white patch, in a ridge of hills about 10 miles to the westward of the western mast house, on with the island Goritta; then steer for the west point of the island; keeping that mark to the westward of the houses, or over the west point of the island, you will go over the tail of the shoal off the point in 9 or 8 fathoms water, the white patch then bearing N. W. by N. The south point of the island is bold to; but if you intend anchoring between Maldonado Point and the island, which is safe and good, then bring the look-out house on the point to bear N. E. or N. E. $\frac{1}{2}$ E. and haul in for the bay, steering N. N. E. in from 10 to 16 fathoms, sandy ground, until you bring the barracks within the point to bear S. S. E. the east point of the island W. N. W. the west point of the island W. by S. and the Tower of Maldonado N. by W. $\frac{1}{2}$ W. then you will have from 6 to 7 fathoms, sandy ground, where you can moor with a cable each way, placing your best bower N. W. but should you be desirous of going into Maldonado Roads, you must give the N. W. point of Goritta a birth of 1 mile, for a dangerous shoal lies off it with only 17 feet water. This shoal bears from the N. W. point of Goritta N. W. by W. $\frac{1}{2}$ W. extending 2 cables' length from N. W. to S. E. and is about a cable's length broad. With a fair wind, you may sail between the point and the shoal, there being 6, 7, and $7\frac{1}{2}$ fathoms water, and the passage near half a mile wide. When you can bring the N. W. point of Goritta to bear S. E. by E. then steer in for the anchorage; shape your course N. E. or N. E. by E. keep midway between the island and the main, and as soon as you bring the N. W. point of the island to bear S. by W. or S. S. W. you will then have $4\frac{1}{2}$ fathoms, good holding ground. Here large ships may anchor, but small ones may go up further, bringing the N. W. end of the island to bear S. W. by W. or W. S. W. when you will have 4 fathoms, good ground.

COURSES AND DISTANCES.

[N. B. Although these are the courses, &c. by compass, it will not answer to steer them from one place to another; reference may be had to the chart to see if there is no land, rocks, shoals, or islands, in the way; and where there is no danger, too much dependence must not be paid to them, as vessels are frequently set very much out of the way by tides and currents, therefore a good look out should always be kept.]

	By Compass.	Leagues.
From Point Alderton, when to the eastward of the Graves, to } Cape Ann	N. E.	8½
— Broad Sound to Marblehead - - -	N. E. by N.	4
— Boston light-house, when to the eastward of the } Greaves, to Cape Ann	N. E. ½ N.	8½
— Boston light-house to the Race Point of Cape Cod	E. S. E.	11
— the dry Salvage Rock off Cape Ann, when said rock } bears S. E. 2 miles distant, to Newburyport bar	N. W. by W.	3 2-3
— Newburyport bar to Portsmouth light-house - - -	N. N. E. ¼ E.	5
— the dry Salvage Rock to Portsmouth - - -	N. ¼ W.	11
— the meeting-house on the Isle of Shoals to Boon Island	N. E. by N.	3½
— do. to Boon island ledge - - -	N. E. by E.	4½
— do. to Portsmouth light-house - - -	N. W. by N. ½ N.	3½
— do. to Newburyport lights on } Plumb island	S. W. ½ W.	6
— do. to Thatcher island lights - - -	S. ¼ W.	6½
— do. to Cape Cod light-house - - -	S. S. E. ½ E.	20
— Baker's island light-house to Cape Cod light-house	S. E. ½ S.	15
— Thatcher's island do. do. do. - - -	S. S. E. ¼ E.	14½
— Portsmouth light to Cape Cod light - - -	S. S. E.	22½
— Cape Cod light to Wood island light - - -	N. ¼ W.	28
— do. do. to Portland do. do. - - -	N. ¼ E.	32
— do. do. to the Monument on Cape Elizabeth	N. ¼ E.	30
— do. do. to Seguin island light-house - - -	N. by E. ½ E.	32
— do. do. to Boon island light-house - - -	N. by W.	22
— do. do. to Manheigin island - - -	N. N. E. ¼ E.	35 1-2
— Isle shoals to York harbour - - -	N. ½ E.	3
— York harbour to York ledge - - -	S. E.	1
— Portsmouth when the light-house bears N. N. W. dis- } tant one league to the Nubble of Cape Neddock	N. E. by N.	3
— Plymouth lights to Thatcher island lights - - -	N. ½ E.	13 2-3
— Cape Neddock to Boon Island light - - -	S. E. ½ S.	2
— Boon Island to Boon Island rock - - -	East	1
— Cape Neddock to Wells' bar - - -	N. by E. ½ E.	3
— Cape Neddock to Cape Porpoise - - -	N. E.	4 2-3
— Cape Porpoise to wood island light-house - - -	N. E.	2 1-3
— Wood island light-house to Cape Elizabeth - - -	N. E. ¾ E.	3
— Monument of Cape Elizabeth to Alden's rock - - -	S. E. by E. ½ E.	1 1-6
— Portland light-house to Alden's rock - - -	S. by E. ¼ E.	2 1-6
— Cape Elizabeth to Seguin island - - -	E. by N.	6 1-3
— Cape Ann to the Monument on Cape Elizabeth	N. N. E. ¼ E.	18
— Seguin island to Manheigin island - - -	East	8
— Manheigin island to Metenic island - - -	N. E. by E. ½ E.	3 1-3
— Matinicus island to Isle of Holt - - -	E. N. E.	4
— Isle of Holt to Long island - - -	E. N. E. ½ E.	5
— Long island to Mount Desert rock - - -	S. E. by S.	6
— Matinicus to Machias Seal Islands - - -	E. N. E. ¼ E.	30
— Matinicus island to Mount Desert rock	E. by S.	12 1-2
— do. to Machias bay (entrance) - - -	E. N. E.	27
— Machias Seal island to Grand Manan - - -	E. ¾ N.	1 2-3
— Cross islands Machias to West Passamaquody head	N. E. by E.	7
— Grand Manan island to Wolves islands - - -	N. E. by N.	4
— the Wolves islands when said islands bear E. S. E. } your course to Campo Bello island	W. by N.	3

	By Compass.	Leagues.
From Cape Ann to Cashe's ledge - - -	E. by N.	21 2-3
— Cape Ann to Manheigin island - - -	N. E. $\frac{1}{4}$ E.	26 1-2
— do. to the shoal of Georges - - -	E. S. E.	45
— Montague point to Sandy hook - - -	W. by S.	33
— High land of Cape Cod to George's bank (the shoal } ground) }	E. by S. $\frac{1}{2}$ S.	33
— Cape Cod light-house to the shoal of George's	E. by S. $\frac{3}{4}$ S.	36
— Sandy hook to Cape Henlopen - - -	S. S. W. $\frac{1}{4}$ W.	37
— Cape Henlopen to cape Henry - - -	S. S. W. $\frac{1}{4}$ W.	41
— South shoal of Nantucket to Cape Henry light -	S. W. by W.	125
— do. do. to block island - - -	W. N. W.	26
— Gay head to Cape Henlopen light - - -	S. W. by W.	84
— do. to Cape Henry light - - -	S. W. $\frac{1}{2}$ W.	125
— Cape Henry to Cape Hatteras - - -	S. by E. $\frac{1}{4}$ E.	37
— do. to Roanoke inlet - - -	S. S. E. $\frac{1}{4}$ E.	26
— Cape Hatteras to Cape Look out - - -	S. W. $\frac{3}{4}$ W.	23
— Cape Hatteras to Ocracock inlet - - -	S. W. by W. $\frac{1}{4}$ W.	9
— Ocracock inlet to Cedar inlet - - -	S. W. $\frac{1}{4}$ W.	7 2-3
— Cape Fear to Cape Roman - - -	S. W. $\frac{1}{4}$ W.	22
— Cape Roman to Charleston light-house - - -	S. W. by W.	11
— Charleston light-house to Tybee light-house -	S. W. $\frac{3}{4}$ W.	24
— Savannah to Tybee light-house - - -	E. by S.	5
— Tybee light-house to Port Royal - - -	N. by E. $\frac{1}{4}$ E.	3
— do. to the entrance of the river St. Johns	S. S. W. $\frac{1}{4}$ W.	39
— do. to the entrance of the river St. Mary's	S. W. by S.	32
— the entrance of the river St. Johns to St. Augustine bay	S. S. E.	10
— St. Augustine to Cape Carneveral - - -	S. E. by S.	37
— thence to the shoals of do. - - -	East	5 2-3
— thence to Cape Florida - - -	S. $\frac{1}{4}$ E.	50
— the Breakers of Cape Carneveral to Martinella reef	S. E. by E. $\frac{1}{4}$ E.	20
— Cape Florida to the Double-headed Shot Keys	S. $\frac{1}{2}$ W.	35
— Double-headed Shot Keys to the Havanna -	W. S. W. $\frac{1}{4}$ S.	39
— do. to S. W. part of Portugas Bank - - -	W. by N.	48
— thence to Cape Sable - - -	E. N. E.	32
— thence to Cape Roman - - -	N. N. W.	25
— thence to Charlotte harbour or Bay Carlos -	N. N. W.	15
— thence to entrance of Hillsborough bay - - -	N. W. by N.	23
— thence to the bay of Apalach - - -	N. N. W. $\frac{1}{2}$ W.	54
— thence to Cape St. Blas or St. Blaize - - -	W. by S.	25
— thence to Pensacola Bar - - -	W. N. W.	37
— thence to Mobile Point - - -	W. by S.	16
— thence to the Mouth of the Mississippi - - -	S. W. by S.	30

Courses and Distances between the Coast of Hispaniola, the Caycoses, Turks' Islands, &c.

	By Compass.	Leagues.
From Cape Nicholas Mole to the west end of Tortudas	N. E. $\frac{1}{4}$ E.	11
— west end of Tortudas to the east end of Henega	N. by W.	24 2-3
— do. do. to Little Henega - - -	N. $\frac{3}{4}$ W.	27
— do. do. to Little or W. Caycos - - -	N. by E. $\frac{1}{4}$ E.	31
— Little Henega to W. Caycos - - -	E. $\frac{1}{4}$ N.	9
— Hogsties to Flat Islands or French Keys - - -	N. by E.	22
— Atwood's Key to Mayaguanna - - -	S. E. by E.	16
— French Keys on the bank to the South point of Little } Caycos }	N. W. by W. $\frac{1}{4}$ W.	8
— Sandy key to French key - - -	N. N. W. $\frac{1}{2}$ W.	4
— Cape Francois to Little Caycos - - -	N. N. W.	35
— Monte Christo to the south point of Caycos Bank	N. $\frac{1}{2}$ W.	20
— North key to the East side of Long Island -	W. $\frac{1}{2}$ S.	9
— do. to Rum Key - - -	N. N. W. $\frac{1}{2}$ W.	14
— do. to Atwood's Key - - -	N. E. $\frac{1}{4}$ E.	10
— Atwood's Key to Watiand's or Watling's Island	N. W. $\frac{1}{2}$ W.	18
— Rum Key to Watling's Island - - -	N. E. $\frac{1}{4}$ N.	7
— do. to Little Island or Key - - -	N. W. $\frac{1}{4}$ W.	7
— do. to the northwest of Long Island - - -	W. S. W.	12

	By Compass.	Leagues
From Northwest part of Long Island to Little Island	N. E. $\frac{1}{2}$ N.	10
the Dogshead (east end of Tortudas) to Cape Francois	E. S. E. $\frac{1}{4}$ S.	12
do. to Mounte Christo	E. by S.	21
Mount Christo to the south point of Caycos Bank	North	22
do. to Sand Key (the southernmost of Turk's Islands)	N. by E. $\frac{1}{4}$ E.	26
do. to Cape Land (Cape Francois)	W. by S. $\frac{1}{4}$ S.	10
do. to Point Ysabelica	E. Northerly	12
Old Cape Francois to Silver Key	N. N. E. $\frac{1}{2}$ E.	14
Cape Maze to Barraco	W. N. W. $\frac{1}{4}$ N.	10
do. to S. W. part of Great Henega	N. N. E. $\frac{1}{4}$ E.	17
Cape Nicholas to the S. W. part of great Henega	N. $\frac{1}{2}$ W.	23
S. W. part of Henega to the Hogsties	N. by W. $\frac{1}{4}$ W.	11
W. part of do. to do.	N. by W. $\frac{1}{4}$ W.	10
W. point of Henega to South Key or Castle Island	N. N. W. $\frac{1}{4}$ W.	23
Hogsties to South key	N. N. W. $\frac{1}{2}$ W.	11
N. W. point Henega to Mira por vous Keys	N. W. $\frac{1}{2}$ N.	22
Mira por vous Keys to South Key	E. by N. $\frac{1}{2}$ N.	4
South Key to the south west end of Long Key or fortune Island	N. $\frac{1}{2}$ W.	6
S. W. end of Long Key to Wells of Crooked Island	N. N. E. $\frac{1}{2}$ E.	8
do. do. to the Bird Rock or North Key	N. $\frac{1}{2}$ E.	9

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Courses and Distances among the Caribbe and Virgin Islands.

	By Compass.	Leagues.
From Barbadoes (Carlisle bay) to the N. W. point of Togago	N. by W.	41
do. to the south end of St. Vincents	W. $\frac{1}{2}$ S.	27
do. N. W. end to the E. end of Marygalante	N. N. W. $\frac{1}{4}$ W.	59
do. N. end to Point salines or south end Martinico	N. W.	29
Tobago south west end to the south west end of Grenada	N. W. by W.	30
all along the Grenadines, from N. end to Grenada	N. by E. $\frac{1}{4}$ E.	17 1-2
Bequir to St. Vincents	N. by E.	2
N. end of St. Vincents to the south west point of St Lucia	N. $\frac{1}{2}$ E.	5 1-2
W. part of St. Lucia to Gross Inlet	N. by E. $\frac{3}{4}$ E.	8
St. Lucia (Gross Inlet) to the south end of Martinico	N. N. E.	7
do. do. to the Diamond Rock	N. $\frac{1}{2}$ W.	7 1-2
Martinico (the Pearl Rock) to Point Cachacrou in Dominico	N. N. W.	8
Dominico (Prince Ruperts Bay) to Bassaterre Road in Guadaloupe	N. N. W. $\frac{1}{2}$ W.	10
do. do. to the Little Islands of Olives	W. Southerly	14
Dominico (N. Point) to the S. W. point of Marygalante	N. E.	8
Guadaloupe (S. Point) to the S W. part of the westernmost Saint	S. S. E. $\frac{1}{2}$ E.	2
do. (Englishman's Head) to Johnson's point in Antigua	N. $\frac{1}{2}$ W.	9 1-2
do. do. to English Harbour Antigua	N. $\frac{1}{2}$ E.	10
the easternmost Saint to Marygalante	E. by N. $\frac{1}{2}$ N.	8
Marygalante (N. Point) to Descada	N. N. E.	7
Antigua (Ship Stern) to the S. side Barbuda	North	11
Antigua (St. John's Road) to the N. end of Monserat	S. W. $\frac{1}{2}$ W.	8
do. do. to the S. end of Nevis	W. by N.	13
Monserat (W. Point) to the S. end of Nevis	N. W. by N.	10
do. do. to Redondo	N. W. by N.	3
Nevis (West Point) to Horse Shoe Point, the southernmost point of St. Kitts	N. N. W. $\frac{1}{2}$ W.	1
St. Kitts (Sandy Point) to St. Eustatia	S. W. by W.	2
do. do. to the southwest end of St. Bartholomews	N. $\frac{1}{2}$ E.	7
do. do. to Santa Cruz	W. by N. $\frac{1}{4}$ N.	32
St. Eustatia to Saba	N. W.	3
Saba to the Little Island of Avis	S. by W. $\frac{1}{4}$ W.	45
Saba to the Virgin Gorda	N. W. $\frac{1}{4}$ W.	20

	By Compass.	Leagues.
From Saba to Sombrero - - - -	N. by W. $\frac{1}{2}$ W.	20
— Santa Cruz to St. Johns - - - -	N. N. E. $\frac{1}{2}$ E.	7
— do. to St. Thomas - - - -	N. by W.	10
— Anegada to Sombrero - - - -	East	9

Courses and Distances on the south side of Hispaniola, &c.

	By Compass.	Leagues.
From Altavella to the Island of Beata - - - -	N. N. E.	2
— do. to the Frails - - - -	N. W. by N.	2
— the False Cape to S. W. points of Beata - - - -	S. S. E.	4
— Western False Cape to Altavella - - - -	S. $\frac{3}{4}$ E.	6
— do. do. to the Frails - - - -	S. by W. $\frac{1}{4}$ W.	6
— do. do. to River Samba - - - -	N. N. W.	6
— Jaquemel to Cape Beonnet - - - -	W. by S.	7
— Cape Beonnet to Avache, or the Isle of Ash - - - -	W. S. W. $\frac{1}{4}$ W.	10 1-2
— Avache to Point Abacco - - - -	W. by W. $\frac{1}{2}$ S.	2
— Point Abacco to Cape Tibueron - - - -	W. N. W.	19
— Cape Tibueron to Navassa - - - -	W. $\frac{1}{2}$ S.	12
— Cape Donna Maria to Cape Rosa - - - -	E. N. E.	8
— Cape Rosa to the Great Caymite - - - -	E. $\frac{1}{2}$ S.	3
— North part of Caymite to West end of Granive Bar - - - -	N. E. by E.	13
— Cape Donna Maria to Cape Nicholas - - - -	N. N. E. $\frac{1}{2}$ E.	30
— Cape Nicholas to the Island of Great Caymite - - - -	S. $\frac{1}{4}$ W.	22
— do. to West end of Great Granive - - - -	S. $\frac{1}{2}$ E.	19
— do. to the west end of Tortugas - - - -	N. E. by E.	12
— East end of Tortugas to Cape Francois - - - -	S. E. by E. $\frac{1}{2}$ E.	11
— do. do. to the Grange - - - -	E. by S. $\frac{1}{2}$ S.	21
— Little Caycos to Mayaguana - - - -	N. N. W. $\frac{1}{2}$ W.	20
— do. to East N. end of Great Heneaga - - - -	S. W. by W.	10
— S. W. of great Heneaga to Aclin's Key - - - -	N. by W. $\frac{1}{2}$ W.	26
— West end of do. to French Keys - - - -	N. $\frac{1}{2}$ E.	34
— French Keys to Atwood's Key - - - -	N. by W.	10
— do. to S. W. point of Mayaguana - - - -	E. by S.	9
— West end of Mayaguana to West Caycos (or Little Caycos) - - - -	S. S. E. $\frac{1}{2}$ E.	20
— West Caycos to Cape Francois - - - -	S. by E.	35

Courses and Distances between Jamaica, Cuba, and Hispaniola.

	By Compass.	Leagues.
From Port Morant to Morant Keys - - - -	S. E. by S.	9
— Morant Keys to Overfall - - - -	N. by E.	8
— Morant point, or east of Jamaica to the Formugas - - - -	N. by E.	8 1-2
— St Jago to Cumberland Harbour - - - -	East	13
— Cumberland Harbour to Puerto Escondido - - - -	East	6
— do. to Cape Bueno - - - -	E. by N. 1-2 N.	16
— Cape Bueno to Cape Mayze - - - -	N. E. 1-2 E.	4
— Navaza to Cape Tibueron - - - -	E. by N. 1-2 N.	9
— do. to Cape Donna Maria - - - -	N. E. $\frac{1}{4}$ E.	12
— Cape Tibueron to Cape Donna Maria - - - -	N. $\frac{3}{4}$ E.	5
— Cape Donna Maria to Cape Rosa - - - -	E. N. E.	7
— do. to Cape Nicholas (the W. end of Hispaniola) - - - -	N. E. by N.	30
— Cape Rosa to the west end of the North Caymite - - - -	East	7
— do. to Cape Nicholas - - - -	N. by E. 1-2 E.	25
— North Caymite to the west end of Guanaba - - - -	N. E. by E.	13
— S. E. point of Guanaba to the Triangles - - - -	N. E. 1-2 E.	3
— do. do. to St. Marks point - - - -	N. 1-2 W.	6
— the Triangles to St. Marks point - - - -	N. N. W. $\frac{1}{2}$ W.	5
— St. Marks point to the Devil's Bluff - - - -	N. N. E.	2
— do. to the Platform - - - -	N. W. by W.	12
— the Platform to Cape Nicholas - - - -	N. N. W. $\frac{3}{4}$ W.	4

	By Compass.	Leagues.
From Cape Nicholas to the Gonahives	E. by S.	12
— Gonahives to Atribonite river	S. S. E.	3

Windward Passage.

	By Compass.	Leagues.
From East end of Jamaica to St. Jago	North	40
— do. do. to Cumberland Harbour	N. by E. $\frac{1}{2}$ E.	45
— do. do. to Sphinks' bay	N. N. E. $\frac{1}{2}$ E.	54
— East end of Jamaica to Navasa	E. N. E. $\frac{1}{2}$ N.	26
— do. do. to Cape Donna Maria	E. N. E. $\frac{1}{2}$ N.	36
— Navasa to Cape Tiberon	E. $\frac{1}{2}$ S.	11
— Cape Nicholas to the S. W. end of Heneaga	N. N. W.	24
— do. to Cape Maize	N. W. by W.	16
S. W. end of Heneaga to the Hogstics	N. by W. 1-2 W.	14
Hogstics to the south part of Acklin's key	N. W. 1-2 N.	11
Acklin's key to the south part of Long key	N. by W.	4 1-2
South end of Long key to Bird's rocks	N. 1-2 W.	3
Bird rock to the south end of Long Island	S. W. 1-2 S.	12
Rum key to the north end of Long island	W. S. W. 1-2 S.	12
Little island to the north end Long island	S. S. W. 1-2 W.	8
Bird rock to Rum key	N. N. W. 1-2 W.	14
Rum key to Watlings Island	N. N. E. 1-2 E.	7
West part Bird's rock to south part Watland's island	N. 1-2 W.	20
Watland's island to the south end of Rum key	N. E. by N.	8
Rum key to Little island	W. N. W. $\frac{1}{2}$ W.	3
Watland's island to Little island	W. S. W.	10
Rum key to the N. W. part of Long island	W. N. W.	13
N. W. end of Long island to Little island	N. N. E. 1-2 E.	9
do. do. to Exuma pond	W. 1-2 N.	12
Exuma pond to Ship channel between the E. end of } island Elthera and Little island }	N. W. by N.	25
S. E. of Cat island to Little island	S. E. by E.	8
Ship's channel to Powel's point	N. W.	17
Powel's point to James' point	N. N. W. 1-2 W.	16
James' point to the entrance of Harbour island	W. by N.	6
Harbour island to Egg island	W. by S.	10
Egg island to Providence bar	S. W. by S.	14

From Jamaica through the Gulf.

	By Compass.	Leagues.
From Port Royal keys to Portland point	S. W. 1-2 W.	8
Portland point to Great Pedro point	W. 1-2 N.	16
Pedro point to the easternmost Pedro keys	S. E.	14
Pedro keys to Boxa Nova	S. W. 1-2 S.	26
Boxa Nova to the west end of Jamaica	N. by E.	38
West end of Jamaica to the Grand Caminas (or Cayman)	W. N. W.	50
do. do. to the Little do. do.	N. W. by W.	37
Little Cayman to Caminbrack	N. E. by E.	2 1-2
do. do. to Great Cayman	E. N. E. $\frac{1}{2}$ E.	17
East end of Great Cayman to the S. side of the } Isle of Pines }	N. W. 1-2 W.	54
West do. do. to Cape Corientes	N. W. $\frac{1}{2}$ W.	80
Havannah to Matanzas	East	12
do. do. to Double Headed Shot Keys	N. E. by E.	38
Matanzas to Loc Key	N. 1-2 W.	29
Key Sal to Double Headed Shot	N. N. W.	6
do. do. to Matanzas	S. W. by W.	27
Double Headed Shot to Cape Florida reefs	N. N. W.	15
do. do. to Cat Key	N. E. by N.	32
the Pan of Matanzas bearing S. by W. through the } Gulf the general course is }	N. N. E.	
Hole in the Wall to Sterrup Key	W. 1-2 S.	14

Courses and Distances on the Mosquito Shore.

	By Compass.	Leagues.
From Black river to Cape Cameron	W. by N. 1-2 N.	3 1-2
— Cape Cameron to Truxilla point	W. by S. 1-2 S.	20
— Black river to the island of Bonnaca	W. N. W. $\frac{1}{2}$ N.	21
— Entrance Cape river to Prenaw	S. W. by W.	2
— Prenaw river to Sacralien creek	S. W. by W.	1 1-2
— Sacralien creek to Little Rock	W. by N.	2 1-2
— Little Rock to Great Rock	W. by N.	2
— Great Rock to Lymes River	West	1
— Lymes river to Old Romane river	W. 1-2 N.	3 1-2
— Old Romane river to Three Leagues point	W. by N. 1-2 N.	3 1-3
— Lymes river to Cape Honduras	W. 1-2 N.	10
— Cape Honduras to Hog islands	W. 1-2 S.	12
— do. to Truxillo	S. S. W.	5
— do. to Utila	West	24
— Utila to Bishop and Clerks	S. W. by S.	7
— Bishop and Clerks to Snake's Key	W $\frac{1}{2}$ N.	27
— Bonnaca Middle to Middle of Rattan island	W. by S. 1-2 S.	16
— Swan's island to Bonnaca	W. S. W. $\frac{3}{4}$ W.	45
— Salmadine's reef 3 leagues long from Utila	S. W. 1-2 S.	3
— Triumph la Cruz from Bishop and Clerks	N. W. by W.	5
— Point Sal to Bishop and Clerks	E. S. E. 1-2 E.	5
— Cape Honduras to the island of Bonnaca	North	7
— do. to the east end of Rattan island	N. W. by W.	12
— West end of Rattan island to Utila	S. W.	7
— Black river to Partook river	E. by N.	19
— Partook river to Carratusco Lagoon	E. by S. 1-2 S.	15
— Entrance of Carratusco Lagoon to False Cape	E. S. E. 1-2 E.	13
— False Cape to Main Cape	S. E.	9
— Utila to Truimle Crouize	W. S. W. 1-2 W.	9
— Truimle Crouize to Port Sal	S. W.	1
— Port Sal to Port Omoa	S. W. 1-2 W.	12
— Port Omoa to the entrance through the Reef by the } Sapadilla Keys }	N. N. W. $\frac{1}{2}$ W.	13

[This Table contains the LATITUDES and LONGITUDES of the most remarkable harbours, islands, shoals, capes, &c. in Blunt's Coast Pilot, founded on the latest and most accurate Astronomical observations, surveys and charts.]

The Longitudes are reckoned from the meridian of Greenwich.

Coast of the UNITED STATES of AMERICA.			Lat.	Long.
	D. M.	D. M.	D. M.	D. M.
Entrance of St. Croix River				
	45 07	N.	67 08	W.
Island of Campo Bello (middle or West passage of Passamaquoddy Bay)				
	44 57		66 54	
Wolves' Islands				
	45 4		66 41	
E. end of Grand-Manan				
	44 47		66 43	
Grand Manan N. head				
	44 53		66 45	
do. West end				
	44 42		66 53	
Entrance of Machias River				
	44 44		67 20	
Gouldsboro' Harbour				
	44 34		67 52	
Mount-Desert Rock				
	43 52		68 09	
Long Island (South of Mount-Desert or entrance of Blue-Hill Bay)				
	44 09		68 31	
Isle of Holt				
	44 00		68 40	
Castine (formerly Penobscot)				
	44 24		68 46	
Matinicus Island				
	43 50		68 55	
Wooden Bald Rock				
	43 45		68 54	
Island of Manheigm				
	43 44		69 15	
Penmaquid Point				
	43 48		69 27	
Bantum Ledges				
	43 42		69 33	
Kennebeck River entrance				
	43 43		69 47	
Seguine-Island				
	43 41		69 46	
Cape Small point				
	43 40		69 52	
Cashe's-Ledge (shoalest part)				
	43 04		69 11	
Alden's-Ledge, (off Cape Elizabeth)				
	43 28		70 05	
Brunswick				
	43 52			
PORTLAND Light-House				
	43 39		70 13	
Cape Elizabeth				
	43 33		70 11	
Saco River entrance				
	43 28		70 22	
Wood-Island L. House				
	43 27		70 20	
Agamenticus Hill				
	43 16		70 41	
Cape Porpoise				
	43 21		70 25	
Wells Harbour				
	43 19		70 33	
Bald Head				
	43 13		70 35	
Cape Neddock Nubble				
	43 10		70 36	
York River				
	43 07		70 38	
Boon Island				
	43 06		70 31	
Boon Island Ledge				
	43 04		70 27	
PORTSMOUTH Light-House				
	43 04		70 44	
Portsmouth				
	43 05		70 46	
Isles of Shoals				
	42 57		70 38	
NEWBURYPORT				
Lights on Plum Island				
	42 48		70 51	
Ipswich entrance				
	42 43		70 49	
Squam (Pigeon Hill)				
	42 42		70 41	
Sandy Cove (or Bay)				
	42 41		70 38	
CAPE ANN Light-Houses on Thatcher's Island				
	42 40		70 34	
East point of Cape Ann Harbour				
	42 37	N.	70 39	W.
Light-House on Bakers' Island				
	42 34		70 47	
Beverly				
	42 34		70 52	
SALEM				
	42 33		70 52	
Marblehead				
	42 32		70 50	
Nahant Point (N. E. Point of Boston harbour)				
	42 28		70 54	
Boston Light-House				
	42 20		70 54	
BOSTON				
	42 23		71 4	
CAMBRIDGE (Mass.)				
	42 23		71 8	
Plymouth Lights				
	41 59		70 34	
CAPE COD Light-house				
	42 05		70 4	
Sandy Point or Malabar				
	41 34		69 59	
Shoal of George's ditto				
	41 45		67 51	
	41 30		67 27	
NANTUCKET Light-house				
	41 22		70 0	
Sancoty head on Nantucket Island				
	41 16		69 58	
Tom Nevers-head				
	41 14		69 59	
Nantucket south shoal				
	40 42		69 56	
Cape Poge, (Vineyard)				
	41 25		70 25	
Squibnocket head (southwesterly part of Martha's Vineyard)				
	41 17		70 48	
Gay Head Light-House (Vineyard)				
	41 21		70 50	
Noman's Land Island				
	41 15		70 49	
New Bedford				
	41 41		71 2	
Buzzard's Bay entrance				
	41 28		70 58	
NEWPORT entrance				
	41 29		71 23	
Rhode Island Light-house				
	41 28		71 32	
Point Judith L. house				
	41 24		71 37	
Block-island (middle)				
	41 10		71 45	
New-London, (or entrance of Thames river) Light house				
	41 21		72 16	
Faulkland Island L. house				
	41 15		72 50	
NEW-HAVEN entrance				
	41 17		73 4	
Montock Point, (E. end of Long-Island,) Light-house				
	41 04		72 0	
East Hampton, in do.				
	41 0		72 22	
NEW-YORK, city				
	40 42		74 8	
New-York Light-House on Sandy Hook				
	40 28		74 8	
Perth Amboy				
	40 30		74 38	
Little Egg Harbour				
	39 30		74 26	
Great Egg Harbour				
	39 18		74 26	
Cape May				
	38 57		74 57	
PHILADELPHIA				
	39 57		75 09	
Light house on Cape Henlopen				
	38 47		75 10	
Cape Charles				
	37 11		76 14	
Cape Henry				
	36 58		76 21	
Norfolk (Virg.)				
	36 55		76 42	
Petersburgh (Virg.)				
	37 12		77 58	

District Maine.

Massachusetts.

R. Island.

Connect.

New-York.

N. Jer.

Virginia.

N. Hamp.

Mass.

	Lat. D. M.	Long. D. M.		Lat. D. M.	Long. D. M.
Monito I.	18 09 N.	67 53 W.	Cape Mayze	20 14 N.	74 04 W.
Zacheo or Desecheo I.	18 24	67 26	C. Bueno or Guanos	20 06	74 12
Cape Engano	18 35	68 20	Pt. ent. Cumberland Har.	19 54	75 11
Saona I. (E. part)	18 13	68 31	St. JAGO DE CUBA ent	19 57	76 05
St. Catherine's I.	18 18	68 58	Farquin's Peak	19 54	76 50
St. Domingo	18 28	69 51	Cane Cruz	19 47	77 42
La Catalina	18 08	70 11	Boca del este	20 19	79 08
Cape Beata	17 42	71 20	Key Breton	21 06	79 55
Altavella Rock off do.	17 28	71 21	Trinidad River	21 44	80 05
Cape Jaquemel	18 13	72 35	Bay Xagna	21 53	80 48
Island Baca	18 04	73 38	Stone Keys	21 47	81 45
Point Gravois	18 00	73 55	Los Jardines	21 37	81 31
Cape Tiberon	18 20	74 29	S. E. point of the Bank	21 24	81 18
Navaza Island	18 24	75 03	El Jardiuillo	21 24	81 50
Cape Donna Maria	18 38	74 27	Keys Jardines	21 24	82 04
Jeremy	18 38	74 07	1 Pines (S. W. P.)	21 22	82 55
Caymito	18 39	73 43	Indian Keys	21 29	82 56
Petit Guave	18 25	72 54	Keys St. Philip	21 48	83 06
Leogane	18 29	72 38	Point Piedras	21 48	83 42
PORT-AU-PRINCE	18 33	72 21	Cape Corientes	21 43	84 23
I. Gonave (S. E. P.)	18 42	72 47	Cape St. Antonio	21 54	84 57
— N. W. P.	18 56	73 18	Sancho Pedro Shoal	22 04	85 28
St. Mark	19 04	72 45	Shoal discovered in 1797	22 06	85 02
St. Nicola Mole	19 49	73 25	Los Colorados (S. W. P.)	22 19	84 44
Tortudas (W. P.)	20 06	72 54	— N. E. P.	22 58	83 08
— E. P.	20 02	72 35	Point Juan and Jaunito	22 22	84 21
CAPE FRANCOIS	19 45	72 13	Hill Guajibon	22 48	83 21
Port Dauphin	19 42	71 55	Bay Honda	22 54	83 05
Shoal off M. Christie	20 02	71 40	Port Cabanas	22 58	82 52
Monte Christie	19 54	71 43	MARIEL	23 01	82 45
Point Isabella	19 58	71 10	River Banco	23 04	82 38
Old Cape Francois	19 40	69 55	HAVANNAH, the Moro	23 09	82 19
Cape Samana	19 16	69 07	Point Escondido	23 08	81 47
Cape Raphael	19 03	68 53	Point Guanos	23 09	81 40
Morant (E. P.)	17 58	76 09	Pan of Matanzas	23 02	81 42
KINGSTON	18 01	76 51	MATANZAS	23 02	81 36
Port Royal	17 59	76 55	Point Ycacos	23 08	81 09
Portland Point	17 42	77 14	Stone Key off do.	23 12	81 09
Pedro Bluffs	17 50	77 55	Key Cruz del Padre	23 14	80 55
Black River	18 01	78 01	Las Cabezas	23 16	80 43
Savannah-la-Mar	18 13	78 23	Nicolas shoal	23 10	80 13
Cape Negril (S. Point)	18 14	78 37	Key Arenero	22 51	79 49
— N. Point	18 24	78 35	Key Francis	22 40	79 17
Montego Bay	18 31	78 09	Key William (northern-most)	22 36	78 34
Martha Brae	18 31	77 49	St. Juan	22 14	78 58
St. Ann's	18 31	77 22	Key Coco S. side Bahama Channel	22 29	78 17
Galina Point	18 29	76 59	Key Point Paredon do.	22 30	79 05
Arnatta Bay	18 21	76 51	The Barrel	22 25	77 56
N. E. Point	18 13	76 20	Cayo Confites	22 11	77 40
Morant Keys or Las Ranas	17 25	76 00	Cayo or Key Verde	22 05	77 37
Pedro Shoals			Guajava	21 54	77 25
— Portland R. N. E. P.	17 00	77 13	Point Maternillos	21 40	76 59
— Rattlesnake (NWP)	17 05	79 13	Point de Mangle	21 13	76 14
— South Part	16 43	78 26	Point de Mulas	21 07	75 34
Formigas Shoal (N. E. P.)	18 34	75 42	Tanamo	20 43	75 13
— S. W. P.	18 28	75 51	Key Moa	20 44	74 49
Little Cayman (S. W. P.)	19 36	80 05	Point Guarico	20 40	74 41
Caymanbrack (R. P.)	19 43	79 32	Baracou	20 22	74 25
Grand Cayman (S. W. P.)	19 18	81 05	Nativity bank or E. Reef	20 08	68 41
— E. P.	19 18	80 37	Superb Shoal	20 58	68 59
Swan Islands	17 21	84 04	Silver Key (S. E. end)	20 15	69 29
New Shoal	15 56	79 08	— N. E. do.	20 32	69 27
Navaza	18 24	75 03	— W. do.	20 29	69 59

St. Domingo or Hispaniola.

Jamaica.

South side of Cuba.

North side of Cuba.

	Lat. D. M.	Long. D. M.		Lat. D. M.	Long. D. M.
Square Handkerchief (N. E. P.)	21 20N	70 23W	Great Isaac	26 01N	79 02W
— S. E. P.	20 56	70 28	Bemini I. northern fresh water key	25 43	79 08
— S. W. P.	20 53	70 56	Cat key	25 23	79 00
Turk's Island. Grand T.	21 30	71 03	Los Mimbres	25 00	78 55
— Salt Key	21 20	70 58	Los Roquidos (Orange K)	24 35	78 52
— Sand Key	21 12	71 10	Channel Stenteren (N. E. corner)	24 17	78 54
— Endymion's Rocks	21 07	71 15	Key Gunchos	22 44	78 01
Great Caycos, south part	21 31	71 27	Key Lobos	22 25	77 33
— N. E. P. or shoal			Las Mucaras	22 10	77 12
St. Philip	21 45	71 22	South edge of the Bank	22 05	76 22
— N. W. part	21 54	71 47	Key St. Domingo	21 45	75 45
North Caycos, middle	21 56	71 57	St. Vincent's Shoal	21 56	75 19
Booby rocks off do.	21 58	71 57	Key Verde Island	22 01	75 05
Providence Caycos (N. W. P.)	21 52	72 21	Key Sal	22 12	75 41
Little Caycos (S. W. P.)	21 36	72 27	Yuma or Long I. (S. P.)	22 49	74 46
Key Francis	21 31	72 07	— N. P.	23 30	75 19
Sand Key	21 18	72 03	Exuma (N. W. P.)	23 36	75 51
South Keys shoal	21 01	71 43	Leeward Stocking I.	23 50	76 10
Great Inagua or Heneaga, (N. E. P.)	21 19	73 01	THE HOLE IN THE WALL	25 54	77 16
— S. E. P.	21 00	73 06	Rocky point of Abaco	26 17	77 03
— S. W. P.	20 54	73 41	N. E. point of do.	26 30	77 00
— N. W. P.	21 08	73 41	Elbow Key	26 40	77 06
Little Heneaga (E. P.)	21 28	72 55	Man of War Key	26 50	77 15
— W. P.	21 28	73 07	Great Guana Key	26 58	77 28
Hogsties or Corrolaes Bank	21 39	74 00	Los Galapagos (N. P.)	27 22	78 21
Mayaguana E. Reef	21 57	72 55	Matanilla Reef (N. P.)	27 50	79 11
— N. do.	22 30	73 06	El Tumbado or Salt Key	27 21	79 09
— S. W. point	22 20	73 11	Memory Rock	27 00	79 04
French keys or I. Planas	22 40	73 34	Sand Key	26 54	79 01
Miraporvos Keys	22 07	74 32	Wood Key or C. Leno	26 46	79 00
Castle Island or South Key	22 08	74 20	Great Bahama I. (W. P.)	26 38	78 55
Fortune Island (W. P.)	22 30	74 20	— S. P.	26 21	78 35
North Key, Bird I.	22 50	74 22	— E. P.	26 19	78 09
Crooked Island (W. P.)	22 48	74 18	Dog Keys (N. P.)	24 00	79 45
— E. P.	22 38	73 50	Water Key	23 58	79 57
Atwood's Keys or I. Sa- mana (E. P.)	23 05	73 35	Doubleheaded shot Key, (western)	23 56	80 19
— W. P.	23 03	73 49	Salt Key	23 39	80 08
Rom Key	23 34	74 57	Anguila (E. P.)	23 27	79 14
Watland's I. (N. E. P.)	24 06	74 26	Bermuda, GEORGETOWN,	32 22	64 33
— S. W. P.	23 57	74 37	— Wreck Hill, west-		
Conception or Little I.	23 52	75 16	ernmost land	32 15	64 50
St. Salvador, or Guana- hari (S. P.)	23 57	75 32	— Best latitude to run		
— N. P.	24 33	75 49	for Bermuda	32 08	
Little St. Salvador (N. P.)	24 32	76 12	East Coast of America from Georgia to Cape Horn.		
Eluthra or Hetera I.			Cumberland Isl. (S. P.)	30 45N	81 57W
— Powell's point S. P.	24 38	76 23	Amelia Island (S. P.)	30 28	81 56
— Point Falmeto	25 12	76 26	River Nassau entrance	30 28	81 55
— James Point	25 24	76 36	River St. John entrance	30 21	81 54
Harbour Island	25 29	76 50	St. Augustin	29 51	81 42
Egg Island (W. P.)	25 28	77 06	Island Anastasia (N. P.)	29 51	81 37
New Providence, NASSAU	25 05	77 22	— S. P.	29 37	81 29
— E Part	24 59	77 09	Muskito or N. Smyrna ent	28 52	81 01
— W. Part	24 59	77 35	Cape Canaveral	28 18	80 33
Andros Islands (S. P.)	24 04	77 45	Outer breakers off do.	28 20	80 13
— N. P.	25 24	78 03	Las Tortolas or Hum- mocks	27 35	80 30
Berry Islands, Eastern	25 22	77 41	Hillsborough Isl. (N. P.)	27 31	80 19
— Northern	25 50	78 01	— S. P.	27 16	80 13
— Great Harbour	25 50	78 05	Mount Pelado or Bald Head	27 01	80 11
Little Isaac, Eastern	25 57	78 46			

	Lat. D. M.	Long. D. M.		Lat. D. M.	Long. D. M.			
East Coast of Florida.	Grenville's Inlet	26 47 N.	80 02 W	Louisiana	Bancos de Hostiones WP	29 26 N.	93 04 W	
	Cooper's Hill	26 42	80 03		Iron Point or Point			
	Sand Hills	26 32	80 03		Pierro	29 14	92 07	
	New Inlet	26 17	80 06		Deer Point	29 26	92 20	
	Middle river ent.	26 07	80 07		Point del Pajaro	29 24	92 48	
	CAPE FLORIDA	25 42	80 09		River Lobos (ent.)	29 32	93 04	
	Abol (N. P.)	25 20	80 20		Salt Water Bay	29 26	93 28	
	Cuyo Largo or Long Key				Constant Bay	29 27	93 39	
	(N. E. P.)	24 57	80 35		River Mermentao	29 38	94 11	
	S. E. P.	24 52	80 34		Point ent. River Sabine	29 40	94 57	
South Coast of Florida.	Sombrero or Hat Key	24 32	81 23	Point Culebrao (E. part				
	Looe Key	24 28	81 37	I. St. Louis)	29 10	96 05		
	Samboes	24 25	81 47	Point St. Francisco, (en-				
	Sand Key or C. Arena	24 21	81 59	trance of Bay St. Bern-				
	S. W. end of Shoals of C			Florida)	28 58	96 55		
	Florida	24 20	82 31	Horse Inlot	28 08	97 35		
	Tortugas Islands & Bank			Point of the Coast	26 46	97 35		
	N. W. part	24 34	83 02	Bar de St. Jago	26 05	97 31		
	N. E. do.	24 37	82 45	River Brabo (ent.)	25 55	97 26		
	S. E. do.	24 33	82 45	River St. Fernando ent.	25 22	97 32		
West Coast of Florida.	S. W. do.	24 25	83 00	Inlets to Laguna Madre	25 02	97 41		
	Key Marquis	24 30	82 13	Bar de la Marine, (en-				
	Boca Grande or Great			trance River St. Ander)	23 45	97 58		
	Mouth	24 32	82 11	Bar del Tordo	22 52	97 57		
	Key Samba	24 35	81 53	Mount Commandante	22 48	97 58		
	Island of Pines	24 42	81 41	Bar de la Trinidad	22 39	97 57		
	Keys of Bay Honda	24 44	81 29	Bar Ciega	22 34	97 58		
	Key Vacas	24 41	81 17	River Tampico	22 16	98 02		
	Key Agi	24 48	81 16	Point de Xerez	21 55	97 45		
	Cape Sable or Tancha	24 50	81 19	Cape Rojo	21 45	97 35		
East Coast of Mexico.	Cape Romano or P. Larga	26 00	81 51	Tamiagua City	21 16	97 45		
	Boca Grande ent. B.			River Tuspan (ent.)	21 01	97 30		
	Carlos	26 41	82 10	Point Piedras	20 50	97 21		
	Boca Serraxota	27 16	82 37	River Cazonos	20 44	97 15		
	Spirito Santo Bay ent.	27 38	82 47	Tenestequepe	20 40	97 12		
	Keys Anclote	28 11	83 07	Boca de Lima	20 37	97 07		
	Keys of St. Martin	28 42	83 01	River Toccoluta (ent.)	20 30	97 01		
	Fresh water Keys	29 08	83 05	Mount Gordo	20 22	96 57		
	Cayos de Cedres	29 23	83 05	River Nauta (ent.)	20 16	96 50		
	St. Marcos de Apalache	30 10	84 19	River Palma (ent.)	20 10	96 45		
South Coast of the Gulf of Mexico.	South Cape	29 48	84 29	Point Piedras	20 00	96 35		
	St. George's Key S. P.	29 30	85 18	River de Santa Nos.	19 55	96 30		
	Cape St. Blas	29 36	85 35	Point Delgada	19 52	96 26		
	Bay St. Andres, (E. point			Point M Andrea	19 43	96 21		
	of Island Rosa)	30 21	86 43	Point de Bernat	19 40	96 21		
	Bay St. Rosa, W. point			River St. John Angel	19 32	96 20		
	of do.	30 19	87 31	Xalapa	19 32	96 50		
	PENSACOLA	30 24	87 27	Peak de Orizabo	19 02	97 09		
	River Perdido	30 18	87 46	Point de Sampoia	19 30	96 16		
	Mobile point	30 13	88 21	River St. Carlos	19 26	96 15		
Louisiana.	MOBILE	30 40	88 21	River Antigua	19 20	96 14		
	Massacre Island	30 12	88 37	Point Gorda	19 15	96 04		
	I. del Cuerpo	30 12	88 49	VERA CRUZ	19 11	96 04		
	Candelarius (N. P.)	29 59	88 57	St. John de Ulloa	19 15	95 58		
	S. P.	29 28	89 12	Xamapa	19 04	96 06		
	Key Breton	29 28	88 18	River Medellin ent.	19 06	95 59		
	Entrance of MISSISSIP.			Point Auton Lisardo	19 04	95 45		
	PL. (N. E.)	29 12	89 09	Bar de Alvarado	18 46	95 38		
	La Balisa	29 08	89 06	Tlacotalpan	18 35	95 29		
	S. E.	28 59	89 13	Vigia	18 38	95 18		
S. W.	28 56	89 29	Point Roca-Patida	18 40	94 59			
South Coast of the Gulf of Mexico.	NEW ORLEANS	29 57	90 09	Point Morillos	18 41	94 51		
	Baton Rouge	30 36	91 13	Tuxtla	18 18	95 05		
	Long Island	29 15	90 14	Point Zapolitan	18 34	94 41		
	I. Tonbalie (S. P.)	28 52	90 39	Point Xicacal	18 27	94 37		
	I. del Vino W. end	28 56	91 24	Point St. John	18 19	94 29		
	Bancos de Hostiones S.P	28 50	91 44	Barjilla	18 07	94 27		

	Lat.		Long.			Lat.		Long.	
	D. M.	D. M.	D. M.	D. M.		D. M.	D. M.	D. M.	D. M.
South Coast of the Gulf of Mexico	Bar Guazacoalcos	18 08N	94 12W			Triunfo de la Cruz	15 41N	87 17W	
	River Tonelado	18 08	93 55			Utilla I. (N. P.)	16 00	87 02	
	River St. Ann	18 08	93 41			Truxillo	15 53	86 06	
	River Cupitico	18 13	93 08			Cape Delegado or Honduras	16 00	86 11	
	River Dos Bocas	18 13	92 45			Cape Camaron	16 02	85 10	
	River Chirtepeque	18 14	92 39			Cape False	15 14	83 03	
	River Tabasco	18 22	92 07			Cape Gracias a Dios	14 57	82 46	
	River St. Peter and Paul	18 27	91 54			Caxones, (W. P.)	16 02	83 11	
	Point Jicalango	18 44	91 29			—S. E. P.	15 41	82 27	
	Island Carmen	18 46	91 14			Cayman or Vivorilla	15 46	83 26	
	Point Escondido	18 50	90 51			Key John Thomas	15 23	81 49	
	River Chen	19 20	90 36			Alagarte Alla (N.W.P.)	15 21	82 05	
	Point Morros	19 40	90 39			—S. E. P.	15 05	81 54	
	CAMPECHE	19 50	90 30			Serranilla	16 05	80 09	
	Point Desconocida	20 55	90 29			Serrana or Pearl I. (NP)	14 46	79 47	
	Point Gorda	21 06	90 19			—S. P.	14 23	79 51	
	Point Piedras	21 09	90 13			Guana Reefs, (N. P.)	14 49	80 44	
	Igil	21 20	89 19			—S. P.	13 59	80 41	
	St. Clara	21 22	88 45			Roncador	13 39	79 46	
	Bocas de Silau	21 26	88 23			Musketeers	13 27	79 46	
	El Cuyo	21 30	87 43			Providence I. (N. P.)	13 27	80 39	
	Island Jolvas, (N. P.)	21 30	87 11			Musquito Keys (N. P.)	14 49	82 19	
	Island Contoy, (N. P.)	21 36	86 52			Ned Thomas' Keys, S. P.	14 12	82 21	
	Las Arceas Islands	20 16	91 51			Bracman's Bluff	13 51	82 50	
	Bank Obispo	20 32	92 05			Man of War Keys	13 04	82 39	
	Triangles Islands	20 59	92 07			Little Corn Island	12 19	82 06	
	New Shoal	20 33	91 50			Great Corn Island	12 10	82 11	
	Bajo Neuva I.	21 50	91 48			Bluefields (ent)	11 50	82 54	
	Island Arenas	22 07	91 26			I. St. Andrew mid.	12 33	81 00	
	I. Bermeja, or N. W. Shoal	22 36	91 21			E. S. E. Keys	12 22	80 41	
	Bajo Sisal	21 27	90 02			S. S. W. Key or Alburquerque	12 06	81 08	
	Alacran	22 29	89 26			Paxoro Bovo	11 20	82 48	
	N. part of Bank off this coast	23 43	88 43			St. John's Point	10 41	82 54	
	N. E. do.	23 27	86 37			Port Boca Toro	9 29	82 05	
	I. de Mujeres or Women's I.	21 18	86 42			I. Escudo, (N. P.)	9 14	80 57	
	I. Cankun, (S. P.)	20 42	86 58			River Chagre entrance	9 20	80 03	
	New River	20 26	87 15			PORTO BELLO	9 33	79 35	
	River Bacales	20 05	87 34			Farallon I. (N. P.)	9 40	79 33	
	Bay Ascension, (ent.)	19 26	88 03			Point Manzanillo	9 38	79 20	
	Island Cosumel, (N. P.)	20 11	86 34			Point St. Blas	9 33	78 40	
	—S. E. P.	19 52	86 32			Point Conception	9 19	77 53	
	Rio Hondo, (ent.)	19 04	88 17			Ile of Pines	8 55	77 39	
	I. Uvero, (N. P.)	19 20	88 03			Cape Tiburon	8 40	77 29	
	—S. P.	18 22	87 53			River Suniquilla (ent.)	7 57	76 54	
	I. St. Cruz	18 20	87 52			Point Carabana	8 37	76 57	
Key Jaicos	18 14	87 52			Point Arboletes	8 49	76 32		
North Reef	18 02	87 50			Island Fuerte	9 20	76 13		
Chief Channel	17 54	87 55			I. St. Bernard (N.W.P)	9 48	75 50		
Wallis' River (ent.)	17 52	88 19			CARTHAGENA	10 25	75 29		
El Chucho I. (N. P.)	18 58	87 11			Galera de Samba	10 48	75 20		
—S. P. of shoal	18 19	87 06			West ent. River Magdalena	11 03	74 56		
Misteriosa I.	18 38	85 25			St. Martha	11 15	74 11		
Vicioso I.	18 00	84 44			Cape Aguja	11 21	74 12		
Santanilla or Swan I.	17 21	84 04			Bank Navio quebrado	11 36	73 11		
South Keys (N. P.)	17 30	87 12			Hacha	11 31	72 56		
—Hat Key (S. P.)	17 00	87 08			Cape la Vela	12 11	72 14		
Longeriffe or Glover's Reef, (S. P.)	16 21	87 41			Point Gallinas	12 27	71 41		
Sapotillas Keys, (S.E.P)	16 00	88 12			Monges Islands (N. P.)	12 31	70 59		
Rattan I. (E. P.)	16 24	86 20			Cape Chiribacoa	12 17	71 17		
—W. P.	16 13	86 57			Point Espada	12 05	71 08		
Gunuaia or Bonacca I.	16 32	86 07			St. Carlos	11 03	71 12		
Point Manabique	15 49	88 29			MARACAYBO	10 43	71 17		
Omoa	15 37	87 57			Coro	11 24	69 46		
Point Sal	15 47	87 29			Point Cordua	11 35	70 20		
					Point Macoila	12 06	70 19		

South Coast of the Gulf of Mexico

Honduras.

Honduras.

Mosquitos.

Panama.

Darien.

Carthagena.

Maracaibo.

	Lat. D. M.	Long. D. M.		Lat. D. M.	Long. D. M.
Cape St. Roman	12 12 N	70 07 W	Mouth of River Amazon	0 18 N	50 40 W
Island Oruba, (N.W.P.)	12 38	70 09	St. Louis de Marañon	2 21 S	45 38
—S. E. P.	12 25	69 58	Cape Baxas	3 00	42 00
Point Aricula	11 57	69 53	Cape St. Roque	5 01	36 22
Point Savannos	11 33	69 10	Pernambuca or Plende	8 00	35 30
Point Soldado	11 14	68 35	Cape St. Augustine	8 32	35 33
Key Borrocho	10 57	68 19	St. Francisco River	10 58	36 45
Tucacas	10 51	68 17	St. Salvador	13 00	38 38
PORTO CABELLO	10 29	68 04	River St. Salvador, ent.	22 04	41 09
Valencia	10 18	68 07	St. Ann's Islands	22 22	41 26
Point St. John Andres	10 30	67 48	John's Is. (St. Ann's Bay)	22 35	41 45
Point Oricaro	10 34	67 17	Ancho Island	22 44	41 30
Point Trinchera	10 38	67 04	CAPE FRIO	23 00	41 46
LA GUIRA	10 37	66 59	Monks Islands	22 59	42 12
CARRACCAS	10 30	66 57	Point Negra	23 00	42 28
Centenela I. or White Rock	10 50	66 06	Maurice Islands	23 02	42 49
Cape Codera	10 36	66 03	Razor I. off R. Janeiro	23 05	43 16
Curacoa I. (N. P.)	12 24	69 13	Point St. Cruz	22 57	43 16
—S. P.	12 02	68 46	RIO JANEIRO harbour	22 52	43 18
Little Curaco	11 59	68 41	Sugar Loaf	22 58	43 17
Buenayre (N. P.)	12 24	68 26	River Guaratiba	23 10	43 39
—S. P.	12 02	68 18	Point Marañbaya	23 17	43 58
Birds or Aves I. western — eastern	12 00 11 58	67 42 67 29	I. Grande S. P.	23 22	44 09
Roca (W. P.)	11 51	66 58	Point Joantina	23 27	44 22
—E. P.	11 51	66 32	I. St. Sebastian, (N. P.)	23 36	45 02
Orchilla I.	11 49	66 05	—S. P.	23 52	45 02
Blancha I.	11 52	64 40	Mount Trigo	23 59	45 04
Tortuga I.	10 57	65 19	St. Catharine's Island	27 32	49 15
Seven Brothers mid.	11 46	64 27	Porto St. Pedro	31 44	51 30
Margarita, (W. P.)	11 02	64 28	Cape St. Mary, (N. en- trance to R. Plate)	34 57	54 47
—E. P.	11 00	63 50	Cape St. Anthony, (S. entrance to do.)	36 55	56 47
I. Coagua or Pearl I.	10 49	64 14	South part of the point	34 54	56 4
Friars I.	11 14	63 48	MONTEVIDEO	34 37	58 24
I. Sola	11 20	63 38	BUENOS AYRES	37 59	57 39
Testigos I.	11 24	63 09	Cape Corrientes	42 55	64 9
River Orquila ent.	10 08	65 32	Point de Neuva	44 30	65 27
New Barcelona	10 08	64 46	St. Helena	45 45	67 25
I. Borracho	10 20	64 48	Cape Blanco	47 15	65 57
Sante Fe	10 16	64 31	Point Desire	47 45	66 2
Cumana	10 27	64 15	Port St. Julian entrance	49 7	67 42
Araya	10 35	64 20	St. Cruz Harbour	50 19	68 29
Morro Chocopata	10 42	63 54	Cape Fairweather	51 34	68 59
Escondido or Hidden port	10 41	63 27	Cape Virgins, northern point of entrance to Magellan's Straits	52 24	68 25
Cape Malapasqua	10 42	63 04	Cape Espirito Santo (south point of ent- rance to ditto)	52 40	68 26
Cape Three Points	10 46	62 44	Terra del Fuego C. Penas	53 45	67 29
Point Galera	10 45	62 33	—Cape St. Diego	54 37	65 5
Point Pena or Salina	10 44	61 53	Staten Land		
Dragon's mouth	10 41	61 48	—C. St. John eastern- most land near C. Horn	54 48	63 42
River Guarapiche ent.	10 12	62 43	—C. St. Bartholemew	54 57	64 39
Point Morro	9 54	61 58	—C. del Medio ent. to Le Maire's Straits	54 49	64 48
Oronoco River	8 25	60 26	New Island, E. Part	55 17	66 25
Cape Barma	8 22	60 04	Evout's Island (middle)	55 32	66 47
Essequibo River	7 00	58 20	Bernabelas Islands, E.P.	55 44	66 46
DEMERARA river ent			CAPE HORN (south part of Hermit's Island)	55 58	67 21
—Corobana Point	6 48	57 58			
River Berbice ent.	6 20	57 11			
SURINAM River ent.	5 58	55 15			
Paramaribo	5 49	55 15			
R. Marouri entrance	5 50	53 52			
CAYENNE	4 56	52 15			
Oyapock River, St. Louis	3 51	51 40			
Cape Orange	4 12	51 20			
R. Cassipour entrance	3 54	51 10			
Cape North	1 48	50 10			

Carraccas.

Brazil.

R. Plate.

Cumana.

Surinam.

Terra del Fuego.

<i>From the River St. Croix to Cape Cansor.</i>					
	Lat. D. M.	Long. D. M.		Lat. D. M.	Long. D. M.
Entrance of St. Croix River	45 07 N.	67 08 W	P. Escouadac	47 3 N.	64 33 W
Macgone's I. (entrance of St. John's River)	45 18	66 4	Miscou I. (entrance of Chaleur Bay)	48 3	64 15
Cape Spencer	45 17	65 52	Cape Despair	48 27	63 58
C. Chignecto, (entrance Basin of Mines)	45 24	64 49	Island Bonaventure	48 32	63 50
Haute Island	45 19	64 51	Flat point	48 38	63 50
Annapolis Royal	44 47	65 50	Cape Gaspe	48 47	63 52
Breyer's Island	44 19	66 25	Cape Rozier	48 50	63 54
St. Mary's Cape	44 10	66 8	Magdalen River	49 13	64 42
Cape Fourchu	43 52	66 4	St. Ann's River	49 8	66 8
Seal Isles	43 27	65 55	Mouir Camille	48 37	67 45
CAPE SABLE	43 26	65 32	I. de Bik in the river St. Lawrence	48 30	68 24
Sable Island (E. point)	44 5	60 3			
— West ditto	44 3	60 31	I. of Anticosta, (E. P.)	49 8	67 40
Port Roseway	43 40	65 13	— Jupiter's River	49 26	63 25
Port Mansfield	43 50	64 52	— S. W. ditto	49 22	63 23
Gambier Harbour	44 0	64 41	— W. ditto	49 48	64 16
LIVERPOOL	44 5	64 40	— North ditto	49 53	63 54
Isle of Hope	43 53	64 39	Deadman's Island	47 17	61 58
Port Jackson	44 13	64 27	Entry Island	47 15	61 24
Charlotte Bay	44 34	63 53	Amherst Isl. (S. W. P.)	47 12	61 44
C. Sambro Light house	44 30	63 32	Magdalen Isl. (N. E. P.)	47 41	61 05
HALIFAX Harbour	44 36	63 28	Biron Island	47 52	61 10
Port Stephens	45 0	61 59	Bird Island	47 55	60 46
Sandwich Bay	45 8	61 36	St. Paul's Island	47 11	60 4
Torbay	45 12	61 16			
Port Howe	45 13	61 6			
CAPE CANSOR	45 18	60 56			
<i>The Gulf of St. Lawrence.</i>			<i>Newfoundland.</i>		
	Lat. D. M.	Long. D. M.		Lat. D. M.	Long. D. M.
Chedabucto Bay	45 23 N.	61 0 W	Limits of the Great Bank of Newfoundland, (N. point)	50 15 N.	49 45 W
Gut of Cansor, (S. ent.)	45 28	61 13	— South point	41 0	52 0
Cape Huchinbroke	45 34	60 40	Outer Bank	47 0	45 0
Cape Portland	45 48	60 3	Cape Norman	51 42	56 0
LOUISBURG	45 54	59 55	Seal Islands	51 22	56 50
CAPE BRETON	45 57	59 48	Point Ferolle	51 5	57 11
Scattery Island	46 1	59 41	St. John's Bay	50 52	57 23
Flint Island	46 9	59 48	Point Riche	50 46	57 28
Spanish Bay	46 18	60 10	Ingornechoix Bay	50 39	57 22
Port Dauphin	46 23	60 30	Hon Bay	49 36	58 05
Cape North Island	47 6	60 28	Cape St. Gregory	49 22	58 22
Cheticum Harbour	46 42	60 58	South Head	49 10	58 33
Sea Wolf Island	46 27	61 12	Cape St. George	48 30	59 12
Port Hood	45 58	61 35	Cape Anguille	48 0	59 18
Instant Corp Island	45 56	61 37	Cape Ray	47 35	59 15
GULF OF CANSOR, (North entrance)	45 42	61 27	Connor Bay	47 38	58 0
			Burges Island	47 33	57 37
Cape St. George or St. Lewis	45 52	61 55	Ramea Islands	47 32	57 25
Pictou Island	45 51	62 27	Penguin's Islands	47 24	57 0
Cape Tormentine	46 9	63 36	Fortune Head	47 9	55 51
Richibucto Harbour	46 44	64 36	Burnt Island	47 16	55 0
			Great Miquelon	47 05	56 24
St. John's I. (N. Cape)	47 5	63 45	Langley Island	46 50	56 24
West point	46 37	64 10	St. Peter's Island	46 46	56 15
Cape Egmont	46 28	63 51	Point May	46 56	56 2
Halifax Bay	46 25	63 36	Chapeau Rouge	46 52	55 25
— (E. Point)	46 27	61 48	Mortier Rocks	47 3	54 57
Bear Cape	46 3	62 12	Mortier Harbour	47 10	55 3
Halsborough Bay	46 6	62 55	Red Island, (S. P.)	47 24	54 8
			Virgin Rocks	47 11	54 3
			Point Brehin	47 2	54 12
			Cape St. Mary	46 52	54 0
			St. Mary's Bay	46 50	53 40
			Cape Pine	46 44	53 25
			CAPE RACE	46 40	52 54

	Lat. D. M.	Long. D. M.		Lat. D. M.	Long. D. M.	
Newfoundland.	Cape Race Rocks	46 30N	51 30W	Black Bay	51 43N 56 47W	
	Cape Ballard	46 49	52 42	Red Bay	51 46 56 30	
	Cape Broyle	47 8	52 35	York Point	51 59 55 58	
	Bay of Bull	47 21	52 28	Cape Charles	52 13 55 30	
	Cape Spear	47 30	52 20	Great Bay of Eskimaux	54 20 57 36	
	St. John's Harbour	47 33	52 25	Cape Harrison	54 54 56 50	
	Cape St. Francis	47 57	52 30	St. Peter's Harbour	56 28 60 50	
	P. of Grates	48 22	52 32	Inchanted Cape	56 40 60 55	
	Trinity Bay	48 30	52 50	Middle Islands	57 13 60 50	
	Cape Bonavista	48 56	52 35	East Island	57 45 61 20	
	Barrow Harbour	48 52	53 0	Steel Point	58 70 61 50	
	Punk Island	50 1	52 12	Cardinal's Island	58 50 63 0	
	Cape Freels	49 34	52 55	False Black Head	59 20 63 19	
	Woodham Islands	49 54	53 30	Black Head	59 50 63 37	
	Gander Bay	49 44	53 55	Cape Chidley	60 14 65 20	
	Fago Island	50 0	53 54	Button's Islands	60 47 65 5	
	Twillingate Islands	50 3	54 35	<i>Hudson's Bay & Straits, & Davis' Straits</i>		
	Bay of Notre Dame	50 0	55 30	Cape Resolution	61 29N 65 16W	
	Cape St. John	50 10	55 30	Saddle Back Island	62 7 68 13	
	Horse Islands	50 24	55 48	Upper Savage Islands	62 32 70 48	
White Bay	50 19	56 15	North Bluff	62 34 70 56		
Hooping Harbour	50 46	56 13	Cape Charles	62 46 74 15		
Green Island	50 47	55 35	Cape Dorset	64 50 77 12		
Groais ditto	50 56	55 38	Cape Pembroke	63 0 82 36		
Hare Bay (entrance)	51 17	55 50	Cape Walsingham	62 39 77 48		
St. Anthony's Cape	51 20	55 36	Cape Digges	62 41 78 50		
St. Lunaire Bay	51 29	55 30	Salisbury Islands	63 29 76 47		
Cape Degrate	51 43	55 30	Mansfield I. (N. part)	62 38 80 33		
Belle Island	51 53	55 30	(S part)	61 35 81 0		
<i>From Quebec to Hudson's Bay:</i>			Cape Southampton	62 10 86 3		
Canada.	QUEBEC	46 48N	71 05W	North Sleepers	61 38 79 45	
	Condras Island	47 15	70 19	West Sleepers	60 3 81 56	
	St. Paul's Bay	47 16	70 24	Portland Point	59 0 78 30	
	Bay of Rocks	48 0	69 42	Bakers's Dozen	58 5 79 30	
	Point Mille Vache	48 45	68 38	Belcher's (N. Point)	56 20 80 15	
	Manicougan Point	49 11	67 42	James B. (c. Henrietta)	55 10 82 30	
	Cape Nicholas	49 23	67 10	Cape Jones	54 50 78 54	
	Cape Montpelles	49 25	66 51	Bear Isle	54 34 81 24	
	Trinity Cove	49 30	66 48	North Cubb	54 20 80 48	
	The Seven Islands Bay	50 10	66 0	The Twins	53 12 80 35	
	St. John's River	50 20	63 55	Albany Fort	52 14 82 0	
	Mingan Island	50 16	63 35	Moose Fort	51 16 80 56	
	Eskimaux Islands	50 13	62 55	Charlton Island	52 3 79 55	
	Mount Joli	50 5	61 28	York Fort	57 2 92 32	
	Boat Islands	50 0	60 24	Cape Churchill	58 48 93 12	
	St. Mary's Islands	50 8	59 50	P. of Wales' Fort	58 48 94 14	
	Little Mecatina ditto	50 28	59 27	Marble Island	62 33 91 6	
	Great Mecatina Point	50 45	59 3	Cape Dobbes	65 0 96 42	
	St. Augustine Bay	51 15	58 50	Cape Walsingham	64 5 96 10	
	Eskimaux Bay	51 23	57 30	Dyer's Cape	65 20 96 15	
Grand Point	51 24	57 18	Sanderson's Hope	66 18 98 10		
Forteau Bay	51 32	57 0	Cape Bedford	66 55 98 30		
Red Cliffs	51 36	56 52	Waygate Island	70 40 14 13		

TABLE

Showing the *TIMES* of *HIGH WATER*, at the full and change of the Moon, at the principal Ports and Harbours on the coast of America, with the vertical rise of the Tide in Feet.

PLACES.	TIME.	RISES.	PLACES.	TIME.	RISES.
	H. M.	FEET.		H. M.	FEET.
A					
Amazon River	6 0		Henry (Cape)	7 40	
Amelia Harbour	8 30		K		
Ann (Cape)	11 30	11	Kennebeck	10 45	9
Annapolis	11 0		L		
Anticosta I. (W. end)	3 30		Look Out (Cape)	9 0	7
Augustine St.	7 30		M		
B			Machias	11 0	12
Block Island	7 37	5	Marblehead	11 30	11
Boston	11 30	11	May (Cape)	8 45	
Broad Bay	10 45	9	Mount Desert	11 0	12
C			N		
Campbell (Port)	9 0		New Bedford	7 37	5
Canso (Cape)	8 30		Newburyport	11 15	10
Charles (Cape)	7 45		New-Haven	10 16	8
Charleston Bar	7 15	6	New-London	8 54	
Cod (Cape)	11 30	6½	New-York	8 54	5
D			P		
Delaware River (ent.)	9 0		Passamaquoddy River	11 30	25
E			Penobscot River	10 45	10
Elizabethtown Point	8 54	5	Plymouth	11 30	6
F			Portland	10 45	9
Fear (Cape)	8 0		Portsmouth	11 15	10
Florida Keys	8 50		R		
Frying-Pan Shoals	6 30		Rhode Island	6 45	
Fox Island	10 45		Roman (Cape)	8 0	
G			S		
Gay Head	7 37	7	St. Mary's Bar	7 30	7
George's River	10 45	9	Sable Island	8 30	
Georgetown Bar	7 0		Salem	11 30	11
Goldsbrough	11 0	12	Sheepcut	10 45	9
H			Simon's Bar St.	7 30	
Hatteras (Cape)	9 0		T		
Henlopen (Cape)	8 45	5	Townsend	10 45	9

TO FIND THE TIME OF HIGH WATER AT ANY PLACE.

The use of the following TABLES for finding the Moon's AGE, and the TIME of HIGH WATER, at any place.

FIND the moon's age in the first table, by reckoning the number of days since last new moon; and against her age in the second table, you will find hours and minutes, which being added to the time of high water, at the given place, on the change and full days, will give the time of high water there, past noon on the given day. If the sum exceed 12 hours, subtract 12 hours from it, and the remainder will show the time of high water after midnight; but if the sum exceed 24 hours, subtract 24 hours from it, and the remainder will show the time of high water after noon on the next day; which being reduced back to the given day, by deducting 12 hours 24 minutes for each tide of ebb and flood, will give the time of high water on the given day.

EXAMPLE.

Required the time of High Water at Boston Light-House, Dec. 9, 1809?
Against 1809, in the first table, and under December, I find it will be new moon the 5th day; and counting forward to the 9th, I find that the moon will be 3 days old; then against 3, her age, in the second table, stand 1h. 56m. to which add 1h. 30m. (the time of high water at Boston Light House on the change and full days) gives 3h. 26m. the time of high water after noon—from which take 12h. 24m. for half a lunar day, or the time of one eb and flood, the remainder, 1h. 2m. will be the time of high water at Boston light-house in the afternoon of the given day.

A TABLE

Showing the day of the month the New Moon will fall on from the beginning of the year 1806 till the end of the year 1825, according to the New Style: and also a TABLE of the shifting of the Tide, by which the Error in the common method of reckoning the time of high water to fall 49 minutes later every day after the full and change, will evidently appear.

TABLE I.

Years.	Jan.		Feb.		Mar.		Apr.		May.		Ju.		July		Aug.		Sept.		Oct.		Nov.		Dec.		
	N	M	N	M	N	M	N	M	N	M	N	M	N	M	N	M	N	M	N	M	N	M	N	M	N
1806	19		18		20		18		18		16		15		14		12		11		10		9		
1807	8		7		9		7		7		6		5		3		2		1		29		28		
1808	27		26		26		25		25		23		23		21		20		19		17		17		
1809	15		15		16		14		14		12		12		11		9		9		7		6		
1810	5		3		5		3		3		2		1		29		28		28		26		26		
1811	24		22		23		22		21		20		19		18		16		16		14		14		
1812	13		11		12		11		10		9		8		7		5		5		3		3		
1813	2		30		1,31		30		29		28		27		26		24		24		22		22		
1814	21		19		20		19		18		17		1		15		13		13		11		11		
1815	10		8		9		8		7		6		5		4		2		2		30		30		
1816	29		27		28		27		26		25		24		23		21		21		19		19		
1817	18		16		17		16		15		14		13		12		10		10		8		8		
1818	7		5		6		5		4		3		2		1,31		29		29		27		27		
1819	26		24		25		24		23		22		21		20		18		18		16		16		
1820	15		15		14		13		12		11		10		9		7		7		5		5		
1821	4		2		3		2		1,31		30		29		28		26		26		24		24		
1822	23		21		22		21		20		19		18		17		15		15		13		13		
1823	12		10		11		10		9		8		7		6		4		4		2		2		
1824	30		28		29		28		27		26		25		24		22		22		20		20		
1825	19		17		18		17		16		15		14		13		11		11		9		9		

TABLE II.

Moon's Age	Tim. An.	
	day.	H. M.
1	0	44
2	1	22
3	1	56
4	2	28
5	3	2
6	3	40
7	4	24
8	5	12
9	6	4
10	7	4
11	8	8
12	9	12
13	10	15
14	11	16
15	12	12
16	0	56
17	1	24
18	2	8
19	2	40
20	3	14
21	3	52
22	4	26
23	5	28
24	6	16
25	7	18
26	8	22
27	9	26
28	10	30
29	11	32
30	12	12

From change to full, the moon comes to the Meridian in the afternoon, and from the full to the change, she comes to the meridian after midnight.

APPENDIX.

L A W S

RELATING TO THE

POWER AND DUTY OF CONSULS.

*By an Act concerning Consuls and Vice Consuls of the United States, it is enacted,
That*

THEY shall have rights in the ports or places to which they are or may be severally appointed, of receiving the protests or declarations which such captains, masters, crews, passengers and merchants, as are citizens of the United States may respectively choose to make them; and also such as any foreigner may choose to make before them relative to the personal interest of any citizen of the United States: and the copies of the said acts duly authenticated by the said consuls or vice consuls under the seal of their consulates respectively, shall receive faith in law, equally as their originals would in all courts in the United States. It shall be their duty where the laws of the country permit, to take possession of the personal estate left by any citizen of the United States other than seamen belonging to any ship or vessel who shall die within their consulate, leaving there no legal representative, partner in trade, or trustee by him appointed to take care of his effects; they shall inventory the same with the assistance of two merchants of the United States, or for want of them, of any others of their choice: shall collect the debts due to the deceased in the country where he died, and pay the debts due from his estate, which he shall have there contracted; shall sell at auction, after reasonable public notice, such part of the estate as shall be of a perishable nature, and such further part, if any, as shall be necessary for the payment of his debts, and at the expiration of one year from his decease, the residue; and the balance of the estate they shall transmit to the treasury of the United States, to be holden in trust for the legal claimants. But if at any time before such transmission the legal representative of the deceased shall appear and demand his effects in their hands, they shall deliver them up, being paid their fees, and shall cease their proceedings.

For the information of the representative of the deceased, it shall be the duty of the consul or vice consul authorized to proceed as aforesaid, in the settlement of his estate, immediately to notify his death in one of the gazettes published in the consulate, and also to the Secretary of State, that the same may be notified in the state to which the deceased shall belong; and he shall also, as soon as may be, transmit to the Secretary of State, an inventory of the effects of the deceased, taken as before directed.

The said consuls and vice consuls, in cases where ships or vessels of the United States shall be stranded on the coasts of their consulates respectively, shall, as far as the laws of the country will permit, take proper measures, as well for the purpose of saving the said ships or vessels, their cargoes and appurtenances, as for storing and securing the effects of the merchandise saved, and for taking an inventory or inventories thereof; and the merchandise and effects saved, with the inventory or inventories thereof taken as aforesaid, shall, after deducting therefrom the expense, be delivered to the owner or owners.—*Provided*, That no consul or vice consul shall have authority to take possession of any such goods, wares, merchandise or other property, when the master, owner, or consignee thereof is present or capable of taking possession of the same.

To prevent the mariners and seamen, employed in vessels belonging to citizens of the United States, in cases of shipwrecks, sickness or captivity, from suffering in foreign ports, it shall be the duty of the consuls, vice consuls, commercial agents, or vice commercial agents of the United States, from time to time to provide for the mariners and seamen of the United States, who may be found destitute within their districts respectively, sufficient subsistence and passages to some port in the United States, in the most reasonable manner, at the expense of the United States, subject to such instructions as the Secretary of State shall give; and that all masters and commanders of vessels, belonging to citizens of the United States, and bound to some port of the same, are hereby required and enjoined to take such mariners or seamen on board of their ships or vessels, at the request of the said consuls, vice consuls, commercial agents, or vice commercial agents respectively, and to transport them to the port in the United States to which such ships or vessels may be bound, on such terms, not exceeding ten dollars for each person, as may be agreed on between the said master and consul, or commercial agent. And the said mariners or seamen shall, if able, be bound to do duty on board such ships or vessels, according to their several abilities: *Provided*, That no master or captain of any ship or vessel shall be obliged to take a greater number than two men to every one hundred tons burthen of the said ship or vessel on any one voyage; and if any such captain or master shall refuse the same on the request or order of the consul, vice consul, commercial agent, or vice commercial agent, such captain or master shall forfeit and pay the sum of one hundred dollars for each mariner or seaman so refused, to be recovered for the benefit of the United States, in any court of competent jurisdiction. And the certificate of any such consul or commercial agent, given under his hand and official seal, shall be *prima facie* evidence of such refusal in any court of law having jurisdiction for the recovery of the penalty aforesaid.

It shall and may be lawful for every consul, vice consul, commercial agent and vice commercial agent of the United States, to take and receive for every certificate of discharge of any seaman or mariner in a foreign port fifty cents; and for commission on paying and receiving the amount of wages payable on the discharge of seamen in foreign ports, two and a half per centum.

If any consul, vice consul, commercial agent or vice commercial agent shall falsely and knowingly certify, that property belonging to foreigners is property belonging to citizens of the United States, he shall on conviction thereof, in any court of competent jurisdiction, forfeit and pay a fine not exceeding ten thousand dollars, at the discretion of the court, and be imprisoned for any term not exceeding three years.

If any consul, vice consul, commercial agent or vice commercial agent, shall grant a passport or other paper, certifying that any alien, knowing him or her to be such, is a citizen of the United States, he shall on conviction thereof, in any court of competent jurisdiction, forfeit and pay a fine not exceeding one thousand dollars.

All powers of attorney executed in a foreign country for the transfer of any stock of the United States, or for the receipt of interest thereon, shall be verified by the certificate and seal of a consul, vice consul, commercial agent or vice commercial agent, if any there be at the place where the same shall be executed, for which the person giving the certificate shall receive fifty cents.

Instructions for Masters of Vessels.

THE master of a vessel is the legal agent or representative of his owners, and subject to the same rules of honesty and good faith, with other agents. In cases, which are not included within his usual written orders, and which depend upon his judgment alone, he is to act as if the property entrusted to him were his own; and an error in judgment ought not to subject him to the ill opinion of his employers if he has conducted with integrity; especially if his employers had prescribed to him in writing no certain line of duty.

It is almost the invariable practice, however, of owners, to furnish their masters with written orders or instructions, embracing the principal part of their duty during their voyage. It is extremely hazardous for the master to depart from these instructions, as he will be responsible for the least damage which shall accrue from a wanton and unnecessary deviation. He should consult them in every case of doubt or difficulty, and follow them as he does his compass, with the most exact precision. Many permanent duties, however, are connected with the situation of a master which he must always perform, but which are never specified in his orders. These are to depend on his own judgment and fidelity, and are, in all cases, of the utmost importance to the interest of his owners.

He never should attempt a breach of embargoes, blockades, or other restraints, being, in most cases personally responsible, if any damage should ensue.

Passengers on board a vessel are entitled to all the accommodations, conveniences and attentions from the master, which the nature of the vessel and voyage, and the terms of their agreement will admit; and the master is liable to an action, should the passengers be deprived of them, or not conveyed to the port of his destination according to his contract.

A master may detain the baggage or goods of passengers until he is paid the passage money.

Unnecessary deviations from the direct course of the voyage ought never to be attempted.—Not only the policies, on both vessel and cargo are by this means vacated, but the property subjected to other risks which often prove fatal. Unavoidable necessity alone will justify a deviation. Touching at places to which he is not bound, although he may be obliged to pass by them in his course, is a deviation. A permission, in the policy, to touch and stay, will not authorize the master to break bulk and trade.

On entering ports, or navigating difficult passages, where the custom of the trade has stationed pilots, it is the duty of the master to take one on board, and by no means to proceed without; and not to discharge his pilot except at the accustomed places. A neglect of this part of his duty destroys the policies on vessel and cargo, and renders both master and owner liable to the assured.

Port laws and regulations should be carefully observed. In almost every port there are certain laws for the government of the shipping, which cannot be transgressed with impunity. A master should, therefore, inform himself of this on his first arrival, and be scrupulous in conforming himself to them during his stay. All the damage which ensues in consequence of a breach of them, will eventually fall on him.

Port dues and charges are payable by the captain; and his vessel, cables, anchors, &c. may be distrained, not only till these, but even till his own personal debts are paid.

The owners are responsible to the concerned in the voyage for the misconduct of their master; but the master is ultimately liable to his immediate employers. If through wantonness or negligence he run foul of another vessel, an action will lie as well against him as his owners.

The master has the power of appointing his officers and crew, and has the entire command over them, during the voyage for which they were shipped. He may, and it is his duty, for the preservation of peace and order on board his vessel, to administer moderate chastisement, but this chastisement must not be a blow with the fist or stick; the seaman ought to be flogged with a rope before the crew, who at the same time may be apprised of the offence, and that is limited to discipline of officers. In case of mutinous behaviour, or such gross misconduct of any seaman as to endanger the safety of vessel and cargo, the master is justified in putting him in irons. Repeated

disobedience or neglect is a sufficient cause for the master to discharge a seaman; but this disobedience and neglect should be obstinate, and continued, or often repeated, to justify such an exertion of authority in the master.

A seaman may likewise be discharged when infested with any contagious distemper.

When a vessel is driven by stress of weather into a port, other than that to which she is bound, and the cargo, if of a perishing nature, be injured, the master, notwithstanding such injury, will be perfectly secure in proceeding on his voyage with the first opportunity. But the interests of his owners and shippers will, for the most part, in such cases, induce him immediately to sell such part of his cargo as is likely to perish. If, however, the master should risk this procedure, he should obtain the most unequivocal proofs of the state of his cargo, either from the officers of the port, or from the most respectable commercial characters in the place, by their affidavits under oath; and should likewise enter his protest before a notary, and see that his accounts are so fair and regular as to manifest his own integrity; and even after doing all this, he should be reasonably sure of the acquiescence of the owners, shippers, and freighters, before he runs the hazard of a sale.

A protest should be made by the master in every case of accident either to vessel or cargo, at the first port he shall put into. Every occurrence during the voyage, which may operate to the detriment or disadvantage of any of the concerned in the voyage, should be protested against.

The laws of the United States are particularly severe in the prohibition of the slave trade. By an act of Congress it is provided that no citizen or citizens of the United States, foreigners or any other person coming into or residing within the same, shall, for himself, or any other person, either as master, factor, or owner, build, fit, equip, load, or otherwise prepare, any vessel, within any port or place of the United States, nor shall cause any vessel to sail from any port or place within the same, for the purpose of carrying on any trade or traffic in slaves to any foreign country, or of procuring from any foreign kingdom, place or country, the inhabitants of such kingdom, place, or country, to be transported to any foreign country, port, or place, to be sold or disposed of as slaves; and if any ship or vessel shall be so fitted out as aforesaid, for the said purpose, or shall be caused to sail so as aforesaid, every such ship or vessel, her tackle, furniture, apparel, and other appurtenances, shall be forfeited to the United States, and shall be liable to be seized, prosecuted, and condemned, in any circuit or district courts of the district where the said ship or vessel may be found and seized.

All and every person so building, fitting out, equipping, loading, or otherwise preparing or sending away, any ship or vessel, knowing or intending that the same shall be employed in such trade or business contrary to the true intent and meaning of this act, or any ways abetting or aiding therein, shall severally forfeit and pay 2000 dollars, one moiety thereof to the use of the United States, and the other moiety thereof to the use of him, or her suing or prosecuting for the same.

The owner, master or factor of each and every foreign ship or vessel, clearing out for any of the coasts or kingdoms of Africa, or suspected to be intended for the slave trade, and the suspicion being declared to the officer of the customs, by any citizen on oath or affirmation, and such information being to the satisfaction of the said officer, shall first give bond with sufficient sureties to the Treasurer of the United States, that none of the natives of Africa, or any other foreign country or place, shall be taken on board such ship or vessel to be transported or sold as slaves in any other foreign port or place within nine months thereafter.

If any citizen or citizens of the United States, contrary to the true intent and meaning of this act, shall take on board, receive or transport any such person or persons as above described, in this act, for the purpose of selling them as slaves, as aforesaid, he or they shall forfeit and pay, for each and every person so received, transported, or sold, as aforesaid, the sum of 200 dollars, to be recovered in any court of the United States, proper to try the same, the one moiety thereof to the use of the United States, and the other moiety to the use of the person suing or prosecuting for the same.

Any person who imports or causes to be imported into the territory of Louisiana a slave from without the limits of the United States, forfeits for each slave 300 dollars; and any person importing, or causing a slave to be imported within the above territory, or any part of the United States, any slave imported into the United States, since May, 1798, forfeits 300 dollars, unless by bona fide owners, removing thereto to reside. Every slave imported contrary to the intent and meaning of this act shall become entitled to, and receive his or her freedom.

This unrighteous traffic soon becoming so profitable as to call forth all the ingenuity of the unfeeling and avaricious speculators in human flesh, to evade the laws of their country, it was afterwards enacted by congress, that it shall be unlawful for any citizen of, or resident within the United States, directly or indirectly, to hold or have any right or property in any vessel employed or made use of in the transportation of slaves from one foreign country or place to another, and any right or property, belonging as aforesaid, shall be forfeited, and may be libelled and condemned for the use of the person who shall sue for the same; and such person, transgressing the prohibition aforesaid, shall also forfeit and pay a sum of money equal to the value of the right or property in such vessel, which he held as aforesaid; and shall also forfeit a sum of money equal to double the value of the interest which he may have had in the slaves, which at any time may have been transported or carried in such vessel, after the passing of this act, and against the form thereof.

It shall be unlawful for any citizen of the United States, or other person residing therein, to serve on board any vessel of the United States employed or made use of in the transportation or carrying of slaves from one foreign country or place to another; and any such citizen or other person, voluntarily serving as aforesaid, shall be liable to be indicted therefor, and on conviction thereof, shall be liable to a fine not exceeding 2000 dollars, and be imprisoned, not exceeding two years.

If any citizen of the United States shall voluntarily serve on board of any foreign ship or vessel which shall hereafter be employed in the slave trade, he shall on conviction thereof, be liable to

and suffer the like forfeitures, pains, disabilities, and penalties, as he would have incurred, had such ship or vessel been owned or employed, in whole or in part, by any person or persons residing within the United States.

It shall be lawful for any of the commissioned vessels of the United States, to seize and take any vessel employed in carrying on trade, business, or traffic, contrary to the true intent and meaning of this, or the said act to which this is an addition: and such vessel, together with her tackle, apparel, and guns, and the goods and effects, other than slaves, which shall be found on board, shall be forfeited, and may be proceeded against in any of the district or circuit courts, and shall be condemned for the use of the officers and crew of the vessel making the seizure, and be divided in the proportion directed in the case of prize. And all persons interested in such vessel, or in the enterprise or voyage in which such vessel shall be employed at the time of such capture, shall be precluded from all right or claim to the slaves on board such vessel as aforesaid, and from all damages or retributions on account thereof. And it shall be the duty of the commanders of such commissioned vessels, to apprehend and to take into custody, every person found on board of such vessel, so seized and taken, being of the officers or crew thereof, and him or them convey, as soon as conveniently may be, to the civil authority of the United States, in some one of the districts thereof, to be proceeded against in due course of law.

Every master of a vessel, bound to any port in the United States, must make out, on his arrival within four leagues of the coast, a true manifest of his cargo, and have in readiness two copies thereof to be delivered to the proper officers demanding the same, which must be subscribed by said master. And every person having such command shall, on his arrival within the limits of any district within the United States, in which the cargo or any part thereof is to be landed, produce to the officer of the custom first coming on board, the original manifest, and likewise a copy or copies thereof subscribed by said master. It is not, however, required, that the master shall deliver more than one copy of such manifest to the officers aforesaid, who shall come on board such vessel within 4 leagues of the coast of the United States; one other copy of which must be delivered to such officers as shall come on board within every district where the cargo shall be consigned or delivered. To any other officer it is sufficient to shew the original manifest with the certificates thereon.

The penalty to which, by the act of the United States, every master is subjected, by not producing his manifest upon his arrival within 4 leagues of the coast, or within any district of delivery, to the proper officers demanding the same, or by not delivering copies thereof, as by the act directed, or by not giving a true account of the destination of his vessel, is 500 dollars.

If any part of the cargo of a vessel bound to the United States, shall be unladen after her arrival within the limits thereof, or within 4 leagues of the coast, and before she shall come to the proper place for discharging, and there be duly authorized by the proper officer of the customs to unlade the same, the master or person having command, and the mate or other person next in command, shall respectively forfeit 1000 dollars, and the goods so unladen shall be forfeited, except in case of unavoidable accident, or stress of weather; in which case the master shall give notice to two or more of his crew (of whom the mate, or person next in command, shall be one) and together with them shall make proof, on oath before the collector, or other chief officer of the customs of the district within which the accident, necessity or distress shall happen; or if the same shall happen within 4 leagues of the coast, before the collector or other chief officer of the first district within which such vessel shall afterwards arrive.

The master of any other vessel or boat, and any persons aiding or assisting in receiving any goods so unladen, except in case of such accident or necessity, shall forfeit such vessel or boat and treble the value of the goods.

The master of every vessel which shall have arrived within any district of the United States from any foreign place, and which shall depart, or attempt to depart, from the same (unless to proceed on her way to some more interior district to which she may be bound) before report or entry made by the master or person having command with some collector, shall forfeit and pay 400 dollars, and the vessel be liable to be arrested and brought back to the most convenient port in the United States. This penalty will not be incurred, if such departure be occasioned by distress of weather, pursuit or duress of enemies, or other necessity.

Every master or person, having command of any ship or vessel, must make report to the collector or chief officer of the customs, within 24 hours after his arrival from any foreign port, at any port in the United States; and within 48 hours after such arrival, must make a farther report in writing in the form of and containing all the particulars required in manifests. If such vessel have on board distilled spirits, wines or teas, the master shall likewise, within 48 hours after arrival, report to the surveyor or inspector of the revenue the foreign port or place from which he last sailed, the name, burthen, and denomination of his vessel, his own name, to what nation his vessel belongs, the quantity and kinds of spirits, wines, and teas, particularizing the number of casks, vessels, cases, or other packages containing the same, with their marks and numbers, as also the quantity and kinds of spirits, wines, and teas on board as stores, under penalty of 500 dollars, and the loss of the spirits so omitted; and under penalty of 1000 dollars for not making the other reports.

In order to ascertain what articles are exempted from duty, as sea stores, every master or other person, having command of any vessel, shall specify the said articles in his report or manifest, designating them as sea stores, and shall in his oath declare that they are truly sea stores, and not intended for sale or merchandize. If it appears to the collector and naval officer that such sea stores are excessive, they may estimate the duty on such excess, which shall be paid by the master, under penalty of forfeiting the whole excess. And if other articles are found on board as sea stores, than are specified in such entry, or if any are landed without a permit, such articles shall be forfeited and seized, and the master pay treble the value of the articles so omitted or landed.

If any package reported shall be wanting, or the goods shall not agree with the master's report or manifest, the master or other person having command shall forfeit 500 dollars. But this penalty shall not be inflicted, if the collector, naval officer, and surveyor where there are such, or the collector alone, where there are not the other officers, shall be satisfied that no part of the goods has been unshipped, or that the disagreement is by accident or mistake; but in such cases the master may make a post entry.

If any vessel from any foreign place compelled by distress of weather or other necessity, shall put into any port or place of the United States not her destination, and the master with the mate shall within 24 hours after her arrival make protest before a notary public, or other person duly authorised, or before the collector of the district, setting forth the cause or circumstances of such distress or necessity, which protest shall be produced to the collector and naval officer (if any) and a copy left with him or them; and if the master shall within 48 hours, make report in writing to the collector, of the vessel and cargo, and if it shall appear to the collector, by the certificate of the wardens of the port or other officer, usually charged with and accustomed to ascertain the condition of such vessels, if any such there be, or by the certificate of any two respectable merchants, to be named by the collector, that it is necessary to unlade such vessel, the collector and naval officer (where any) shall grant a permit for that purpose, and appoint inspectors to oversee such unlading. And all goods, so unladen, shall be stored under the direction of the collector, who, on the request of the master or owners, shall, with the naval officer, if any, permit to be sold such part of the cargo as is of a perishable nature, or may be necessary to defray the expences of the vessel and cargo. *Provided*, that the entry shall be made therefor, and the duties thereon, as in other cases, shall be paid or secured to be paid; and provided, that if the delivery of the cargo do not agree with the report of the master, and the disagreement be not satisfactorily accounted for, the master shall be liable to such penalties as in like cases are by the act prescribed. The goods not disposed of may be reladen on board the same vessel, under the inspection of the officer who superintended their landing, or other proper person, and the vessel may proceed to her place of destination, free of any other charge than for the storing and safe keeping of the goods, and fees to the officers of the customs, as in other cases.

Every person giving or offering a bribe to any officer of the customs, to connive at any false entry, shall forfeit not less than 200, nor more than 2000 dollars.

LAW OF THE UNITED STATES against the wilful destruction and casting away ships and cargoes, whereby *it is enacted*, That any person, not being an owner, who shall, on the high seas, wilfully and corruptly cast away, burn, or otherwise destroy any ship or other vessel, unto which he belongeth, being the property of any citizen or citizens of the United States, or procure the same to be done, and being thereof lawfully convicted, shall suffer death.

If any person shall, on the high seas, wilfully and corruptly cast away, burn or otherwise destroy any ship or vessel, of which he is owner, in part or in whole, or in any wise direct or procure the same to be done, with intent or design to prejudice any person or persons that hath underwritten, or shall underwrite any policy or policies of insurance thereon, or of any merchant or merchants that shall load goods thereon, or of any other owner or owners of such ship or vessel, the person or persons offending therein, being thereof lawfully convicted, shall be deemed and adjudged guilty of felony, and shall suffer death.

Under this general head it may not be amiss to introduce for the instruction of masters of vessels, an act of the Commonwealth of Massachusetts, to prevent the wilful destruction and casting away of ships and cargoes, whereby *it is enacted*—

That if any owner of, captain, master, officer, or other mariner, belonging to any ship or vessel, shall within the body of any county of this Commonwealth, wilfully cast away, burn, sink, or otherwise destroy the ship or vessel of which he is owner, or to which he belongeth, or in any wise direct or procure the same to be done, with intent or design to prejudice any person or persons that hath or shall underwrite any policy or policies of insurance thereon, or of any merchant or merchants that shall load goods thereon, or of any owner or owners of such ship or vessel, every person so offending being thereof lawfully convicted before the Supreme Judicial Court of this Commonwealth, shall be deemed and adjudged a felon, and shall be sentenced to imprisonment for life, or for a term not less than five years, at the discretion of the court: *Provided nevertheless*, that nothing herein contained shall be construed to bar or prevent the party injured from having and maintaining his action for the damages sustained thereby.

If any owner of any ship or vessel shall equip or fit out such ship or vessel within this Commonwealth, with intent that the same shall be wilfully cast away, burnt, or otherwise destroyed, to the prejudice of any owner of any goods laden on board said ship or vessel, or of any underwriter upon any policy or policies of insurance upon such ship or vessel, or upon any goods laden thereon; and shall be thereof convicted before the Supreme Judicial Court of this Commonwealth, such offenders shall be sentenced to pay a fine not exceeding 5000 dollars, to be set in the pillory one hour, and be imprisoned for a term not less than 2 years, nor more than 10 years, at the discretion of the said court.

If any owner of any ship or vessel, or of any goods laden on board such ship or vessel shall make out and exhibit, or cause to be made out and exhibited, any false or fraudulent bills of parcels, invoices or estimates of any such goods laden or pretended to be laden on board such ship or vessel, with intent to defraud any underwriter upon any policy or policies of insurance upon such ship or vessel, or upon any goods laden thereon, every person so offending, and being thereof lawfully convicted, shall be sentenced to pay a fine not exceeding 5000 dollars, to be set in the pillory one hour, and to be imprisoned for a term not exceeding 10 years, at the discretion of the court.

If any captain, mate, or mariner, of any ship or vessel, shall make out and swear to any false affidavit or protest, or if any owner of any such ship or vessel, or of any goods laden thereon, shall procure such false affidavit or protest, or knowing the same to be false, shall exhibit the same with intent to deceive and defraud any underwriter upon any policy of insurance upon any such ship or vessel, or any goods laden thereon, every person convicted thereof before the Supreme Judicial Court aforesaid, shall be sentenced to pay a fine not exceeding 5000 dollars, to be set in the pillory for one hour, and to be imprisoned for a term not exceeding 10 years, at the discretion of the court before which the conviction may be.

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The Legislature of Nova Scotia have enacted that any person convicted of stealing from any vessel wrecked on the coast of that province or the Isle of Sable, or of obstructing any person of such vessel in attempting to save his life, shall suffer death. They have also declared it felony, without benefit of clergy, for any person willfully to cast away or destroy a vessel.

Regulation of Seamen.

BY a law of the United States for the government and regulation of Seamen in the Merchants' service, it is provided—

That every master or commander of any ship or vessel bound from a port in the United States to any foreign port, or of any ship or vessel of the burthen of fifty tons or upwards, bound from a port in one state to a port in any other than an adjoining state, shall, before he proceed on such voyage, make an agreement in writing or in print, with every seaman or mariner on board such ship or vessel (except such as shall be apprentice or servant to himself or owners) declaring the voyage or voyages, term or terms of time, for which such seaman or mariner shall be shipped. And if any master or commander of such ship or vessel shall carry out any seaman or mariner (except apprentices or servants as aforesaid) without such contract or agreement being first made and signed by the seamen and mariners, such master or commander shall pay to every such seaman or mariner the highest price of wages which shall have been given at the port or place where such seaman or mariner shall have been shipped, for a similar voyage, within three months next before the time of such shipping: Provided, such seaman or mariner shall perform such voyage; or if not, then for such time as he shall continue to do duty on board such ship or vessel; and shall moreover forfeit twenty dollars for every such seaman or mariner, one half to the use of the person prosecuting for the same, the other half to the use of the United States; and such seaman or mariner, not having signed such contract, shall not be bound by the regulations, nor subject to the penalties and forfeitures contained in this act.

At the foot of every such contract there shall be a memorandum in writing, of the day and the hour on which such seaman or mariner, who shall so ship and subscribe, shall render themselves on board, to begin the voyage agreed upon. And if any such seaman or mariner shall neglect to render himself on board the ship or vessel, for which he has shipped, at the time mentioned in such memorandum; and if the master, commander, or other officer of the ship or vessel, shall, on the day on which such neglect happened, make an entry in the log book of such ship or vessel, of the name of such seaman or mariner, and shall in like manner note the time that he so neglected to render himself (after the time appointed) every such seaman or mariner shall forfeit, for every hour which he shall so neglect to render himself, one day's pay, according to the rate of wages agreed upon, to be deducted out of his wages. And if any such seaman or mariner shall wholly neglect to render himself on board of such ship or vessel, or having rendered himself on board, shall afterwards desert and escape, so that the ship or vessel proceed to sea without him, every such seaman or mariner shall forfeit and pay the master, owner, or consignee of the said ship or vessel, a sum equal to that which shall have been paid to him by advance at the time of signing the contract, over and besides the sum so advanced, both which sums shall be recoverable in any court, or before any justice, or justices of any state, city, town or county within the United States, which, by the laws thereof, have cognizance of debts of equal value, against such seaman or mariner, or his surety or sureties, in case he shall have given surety to proceed the voyage.

If the mate, or first officer under the master, and a majority of the crew of any ship or vessel, bound on a voyage to any foreign port, shall, after the voyage is begun (and before the ship or vessel shall have left the land) discover that the said ship or vessel is too leaky, or is otherwise unfit in her crew, body, tackle, apparel, furniture, provisions or stores, to proceed on the intended voyage, and shall require such unfitness to be inquired into, the master or commander shall, upon the request of the said mate (or other officer) and such majority, forthwith proceed to or stop at the nearest or most convenient port or place, where such inquiry can be made, and shall there apply to the judge of the district court, if he shall there reside, or if not, to some justice of the peace of the city, town, or place, taking with him two or more of the said crew, who shall have made such request; and thereupon such judge or justice is hereby authorized and required to issue his precept directed to three persons in the neighbourhood, the most skillful in maritime affairs that can be procured, requiring them to repair on board such ship or vessel, and to examine the same in respect to the defects and insufficiencies complained of, and to make report to him the said judge or justice, in writing under their hands, or the hands of two of them, whether in any or in what respect the said ship or vessel is unfit to proceed on the intended voyage, and what addition of men, provisions, or stores, or what repairs or alterations in the body, tackle or apparel will be necessary; and upon such report the said judge or justice shall adjudge and determine, and shall endorse on the said report his judg-

ment, whether the said ship or vessel is fit to proceed on the intended voyage, and if not, whether such repairs can be made, or deficiencies supplied where the ship or vessel then lies, or whether it be necessary for the said ship or vessel to return to the port from whence she first sailed, to be there refitted; and the master and crew shall in all things conform to the said judgment; and the master or commander shall, in the first instance, pay all the costs of such view, report, and judgment, to be taxed and allowed on a fair copy thereof, certified by the said judge or justice. But if the complaint of the said crew shall appear, upon the same report and judgment, to have been without foundation, then the said master, or the owner or consignee of such ship or vessel, shall deduct the amount thereof, and of reasonable damages for the detention (to be ascertained by the said judge or justice) out of the wages growing due to the complaining seamen or mariners. And if, after such judgment, such ship or vessel is fit to proceed on her intended voyage, or after procuring such men, provisions, stores, repairs, or alterations, as may be directed, the said seamen or mariners, or either of them, shall refuse to proceed on the voyage, it shall and may be lawful for any justice of the peace to commit, by warrant under his hand and seal, every such seaman or mariner (who shall refuse) to the common gaol of the county, there to remain without bail or main-prize, until he shall have paid double the sum advanced to him at the time of subscribing the contract for the voyage, together with such reasonable costs as shall be allowed by the said justice, and inserted in the said warrant, and the surety or sureties of such seaman or mariner (in case he or they shall have given any) shall remain liable for such payment.

If any person shall harbour or secrete any seaman or mariner belonging to any ship or vessel, knowing them to belong thereto, every such person, on conviction thereof before any court in the city, town or county where he, she or they may reside, shall forfeit and pay ten dollars for every day which he, she or they shall continue so to harbour or secrete such seaman or mariner, one half to the use of the person prosecuting the same, the other half to the use of the United States; and no sum exceeding one dollar, shall be recoverable from any seaman or mariner by any one person, for any debt contracted during the time such seaman or mariner shall actually belong to any ship or vessel, until the voyage for which such seaman or mariner engaged shall be ended.

If any seaman or mariner, who shall have subscribed such contract as is herein before subscribed, shall absent himself from on board the ship or vessel in which he shall so have shipped, without leave of the master or officer commanding on board; and the mate, or other officer having charge of the log-book, shall make an entry therein of the name of such seaman or mariner, on the day on which he shall so absent himself; and if such seaman or mariner shall return to his duty within forty-eight hours, such seaman or mariner shall forfeit three days' pay for every day which he shall so absent himself, to be deducted out of his wages; but if any seaman or mariner shall absent himself for more than forty-eight hours at one time, he shall forfeit all the wages due to him, and all his goods and chattels which were on board the said ship or vessel, or in any store where they may have been lodged at the time of his desertion, to the use of the owner of the ship or vessel, and moreover shall be liable to pay to him or them all damages which he or they may sustain by being obliged to hire other seamen or mariners in his or their place; and such damages shall be recovered with costs, in any court or before any justice or justices having jurisdiction of the recovery of debts to the value of ten dollars or upwards.

Every seaman or mariner shall be entitled to demand and receive from the master or commander of the ship or vessel to which he belongs, one third part of the wages which shall be due to him at every port where such ship or vessel shall unlade and deliver her cargo before the voyage be ended, unless the contrary be expressly stipulated in the contract; and as soon as the voyage is ended, and the cargo and ballast be fully discharged at the last port of delivery, every seaman or mariner shall be entitled to the wages which shall be then due according to his contract; and if such wages shall not be paid within ten days after such discharge, or if any dispute shall arise between the master and seamen or mariners touching the said wages, it shall be lawful for the judge of the district where the said ship or vessel shall be, or in case his residence be more than three miles from the place, or of his absence from the place of his residence, then for any judge or justice of the peace to summon the master of such ship or vessel to appear before him, to show cause why process should not issue against such ship or vessel, her tackle, furniture, and apparel, according to the course of admiralty courts, to answer for the said wages; and if the master shall neglect to appear, or appearing, shall not show that the wages are paid, or otherwise satisfied, or forfeited, and if the matter in dispute shall not be forthwith settled, in such case the judge or justice shall certify to the clerk of the court of the district, that there is sufficient cause of complaint whereon to found admiralty process, and thereupon the clerk of such court shall issue process against the said ship or vessel, and the suit shall be proceeded on in the said court, and final judgment be given according to the course of admiralty courts in such cases used; and in such suit, all the seamen or mariners (having cause of complaint of the like kind against the same ship or vessel) shall be joined as complainants; and it shall be incumbent on the master or commander to produce the contract and log-book, if required, to ascertain any matters in dispute; otherwise the complainants shall be permitted to state the contents thereof, and the proof of the contrary shall lie on the master or commander, but nothing herein contained shall prevent any seaman or mariner from having or maintaining any action at common law for the recovery of his wages or from immediate process out of any court having admiralty jurisdiction, wherever any ship or vessel may be found, in case she shall have left the port of delivery where her voyage ended, before payment of the wages, or in case she shall be about to proceed to sea before the end of the ten days next after the delivery of her cargo or ballast.

If any seaman or mariner, who shall have signed a contract to perform a voyage, shall at any port or place desert, or shall absent himself from such ship or vessel, without leave of the master, or

officer commanding in the absence of the master, it shall be lawful for any justice of the peace within the United States (upon the complaint of the master) to issue his warrant to apprehend such deserter, and bring him before such justice; and if it shall then appear by due proof that he has signed a contract within the intent and meaning of this act, and that the voyage agreed for is not finished, altered, or the contract otherwise dissolved, and that such seaman or mariner has deserted the ship or vessel or absented himself without leave, the said justice shall commit him to the house of correction or common gaol of the city, town, or place, there to remain until the said ship or vessel shall be ready to proceed on her voyage, or till the master shall require his discharge, and then to be delivered to the said master, he paying all costs of such commitment, and deducting the same out of the wages due to such seaman or mariner.

Every ship or vessel belonging to a citizen or citizens of the United States, of the burthen of seventy-five tons, or upwards, navigated by six or more persons in the whole, and bound on a voyage without the limits of the United States, shall be provided with a chest of medicines, put up by some apothecary of known reputation, and accompanied by directions for administering the same; and the said medicine shall be examined by the same or some other apothecary, once at least in every year, and supplied with fresh medicines in the place of such as shall have been used or spoiled; and in default of having such medicine chest so provided, and kept fit for use, the master or commander of such ship or vessel shall provide and pay for all such advice, medicine or attendance of physicians, as any of the crew shall stand in need of in case of sickness at every port or place where the ship or vessel may touch or trade at during the voyage, without any deduction from the wages of such sick seaman or mariner.

Every ship or vessel, belonging as aforesaid, bound on a voyage across the Atlantic ocean, shall at the time of leaving the last port from whence she sails, have on board, well secured under deck, at least sixty gallons of water, one hundred pounds of salted flesh meat, and one hundred pounds of wholesome ship bread, for every person on board such ship or vessel, over and besides such other provisions, stores, live stock, as shall, by the master or passengers be put on board, and in like proportion for shorter or longer voyages; and in case the crew of any ship or vessel, which shall not have been so provided, shall be put upon short allowance in water, flesh or bread, during the voyage, the master or owner of such ship or vessel shall pay to each of the crew one day's wages beyond the wages agreed on for every day they shall be so put to short allowance, to be recovered in the same manner as their stipulated wages.

By an Act, supplementary to the "Act for the further protection of American Seamen," it is enacted, That before a clearance be granted to any vessel bound on a foreign voyage, the master thereof shall deliver to the collector of the customs, a list containing the names, places of birth and residence, and a description of the persons who compose his ship's company, to which list, the oath or affirmation of the captain shall be annexed, that the said list contains the names of his crew, together with the places of their birth and residence, as far as he can ascertain them, and the said collector shall deliver him a certified copy thereof, for which the collector shall be entitled to receive twenty-five cents; and the said master shall moreover enter into bond, with sufficient security, in the sum of four hundred dollars, that he shall exhibit the aforesaid certified copy of the list to the first boarding officer at the first port in the United States, at which he shall arrive on his return thereto, and, then and there also to produce the persons named therein, to the said boarding officer, whose duty it shall be to examine the men with such list, and to report the same to the collector, and it shall be the duty of the collector at the said port of arrival (where the same is different from the port from which the vessel originally sailed) to transmit a copy of the list so reported to him, to the collector of the port from which said vessel originally sailed: Provided, that the said bond shall not be forfeited on account of the said master not producing to the first boarding officer as aforesaid, any of the persons contained in the said list, who may be discharged in a foreign country, with the consent of the consul, vice consul, commercial agent, or vice commercial agent there residing, signified in writing, under his hand and official seal, to be produced to the collector, with the other persons composing the crew as aforesaid; nor on account of any such person dying or absconding, or being forcibly impressed into other service, of which satisfactory proof shall be then also exhibited to the collector.

It shall be the duty of every master or commander of a ship or vessel, belonging to citizens of the United States, who shall sail from any port of the United States, on his arrival at a foreign port, to deposit his register, sea letter, and Mediterranean passport, with the consul, vice consul, commercial agent, or vice commercial agent (if any there be at such port) that in case of refusal or neglect of the said master or commander to deposit the said papers as aforesaid, he shall forfeit and pay five hundred dollars, to be recovered by said consul, vice consul, commercial agent, or vice commercial agent in his own name, for the benefit of the United States, in any court of competent jurisdiction; and it shall be the duty of such consul, vice consul, commercial agent, or vice commercial agent, on such master or commander producing to him a clearance from the proper officer of the port, where his ship or vessel may be, to deliver to the said master or commander, all of his said papers: Provided, such master or commander shall have complied with the provisions contained in this act, and those of the act to which this is a supplement.

By an act to prevent the importation of certain persons into certain states, where, by the laws thereof, their admission is prohibited, it is enacted, That from and after the first day of April, 1806, no master or captain of any ship or vessel, or any other person, shall import or bring, or cause to be imported or brought, any negro, mulatto, or other person of colour, not being a native, a citizen, or registered seaman of the United States, or seamen natives of countries beyond the Cape of Good Hope, into any port or place of the United States, which port or place shall be situated in any state which by law has prohibited, or shall prohibit the admission or importation of such negro, mulatto,

or other person of colour, and if any captain or master aforesaid, or any other person, shall import or bring, or cause to be imported or brought, into any of the ports or places aforesaid, any of the persons whose admission or importation is prohibited as aforesaid, he shall forfeit and pay the sum of one thousand dollars for each and every negro, mulatto, or other person of colour aforesaid, brought or imported as aforesaid, to be sued for and recovered by action of debt, in any court of the United States, one half thereof to the use of the United States, the other half to any person or persons prosecuting for the penalty; and in any action instituted for the penalty; and in any action instituted for the recovery of the penalty aforesaid, the person or persons sued may be held to special bail: *Provided always*, that nothing contained in this act shall be construed to prohibit the admission of Indians.

That no ship or vessel, arriving in any of the said ports or places of the United States, and having on board any negro, mulatto or other person of colour, not being a native, a citizen, or registered seaman of the United States, or seamen natives of the countries beyond the Cape of Good Hope, as aforesaid, shall be admitted to an entry. And if any such negro, mulatto, or other person of colour shall be landed from on board any ship or vessel, in any of the ports or places aforesaid, or on the coast of any state prohibiting the admission or importation as aforesaid, the said ship or vessel, together with her tackle, apparel and furniture, shall be forfeited to the United States, and one half of the nett proceeds of the sales on such forfeiture shall enure and be paid over to such person or persons on whose information the seizure on such forfeiture shall be made.

It shall be the duty of the collectors and other officers of the customs, and all other officers of the revenue of the United States, in the several ports or places situated as aforesaid, to notice and be governed by the provisions of the laws now existing, of the several states, prohibiting the admission or importation of any negro, mulatto, or other person of colour, as aforesaid. And they are hereby enjoined vigilantly to carry into effect the said laws of said states, conformably to the provisions of this act, any law of the United States to the contrary notwithstanding.

THE Legislature of the Commonwealth of Virginia has enacted,—That if any seaman or mariner, not being a citizen of that state, or any of the United States, who shall have signed a contract to perform a voyage on board any merchant ship or vessel (either a ship or vessel of the United States, or of any foreign nation whatsoever) shall at any port or place within the Commonwealth, desert, or shall absent himself from such ship or vessel, without the leave of the master, or other officer commanding in the absence of the master, it shall be lawful for any justice of the peace of any county or corporation within the commonwealth, upon the complaint of the master of such ship or vessel, or other officer commanding in the absence of the master, to issue his warrant to apprehend such seaman or mariner, and bring him before such justice; and if it shall appear by due proof, that such seaman or mariner has signed a contract as aforesaid, and that the voyage agreed for is not finished, altered, or the contract otherwise dissolved, and that the seaman or mariner has deserted the ship or vessel or absented himself without leave, the said justice shall commit him to the gaol of his county or corporation, there to remain until such ship or vessel shall be ready to proceed on her voyage, or until the master, or other officer commanding in the absence of the master, shall require his discharge, and then to be delivered to such master or other officer commanding in the absence of the master, he paying the costs of such commitment.

That if any apprentice who shall have been regularly bound by deed to the master or owner of any ship or vessel as aforesaid, for any term of years, for the purpose of being taught the art, trade or mystery of a seaman or mariner, shall at any port or place within the commonwealth, desert or absent himself from the ship or vessel, on board which he hath been placed by his said master, without the leave of the master of such ship or vessel, or other officer commanding in the absence of the master, it shall be lawful for any justice of any county or corporation, within the commonwealth, upon complaint of the master, or other officer commanding in the absence of the master, to cause such apprentice to be apprehended and dealt with in the same manner as herein before stated, if such justice shall be satisfied by due proof that such apprentice hath been regularly bound by deed to the master or owner of such ship or vessel, and that the deed is then in full force. *Provided always*, That if any seaman or apprentice shall offer sufficient proof to satisfy the justice of the peace, before whom he may be brought, that he hath been cruelly or improperly treated while on board any ship or vessel, by the master thereof, or that he hath good cause to apprehend danger to his person from the master, should he be compelled to remain on board such ship or vessel, it shall be lawful for the justice to discharge such seaman, mariner, or apprentice, from all further confinement on account of such desertion or absence.

STATE OF GEORGIA.

Seamen and Mariners.

An Act to punish seamen or mariners neglecting or deserting their duty on board their respective ships or vessels; and for preventing seamen or mariners from being harboured or running in debt.

WHEREAS masters and commanders of vessels trading to this province are often greatly distressed by the neglect or desertion of their seamen, which is in general occasioned by such seamen being harboured and entertained by and running in debt with the keepers of taverns and tipping houses, and ill disposed persons, to the great detriment and hindrance of trade, for the prevention of

which evil, *Be it enacted*, That from and immediately after the passing of this act, if any seaman or mariner having entered or shipped himself on board any ship or vessel within this province, or which shall come to the same, and having signed an agreement or contract with the master or commander thereof to proceed upon any voyage therein mentioned, shall absent himself from such ship or vessel for the space of twenty-four hours, without leave had and obtained from the said master or commander, or other chief officer having the command of such ship or vessel, or shall refuse or neglect to perform his duty on board the same, or refuse to proceed on the voyage mentioned in such agreement or contract signed as aforesaid, it shall and may be lawful for any justice or justices of the peace, within their respective jurisdictions, upon application being made to him or them by such master or commander, to issue his or their warrant or warrants, to apprehend such seaman or mariner, and upon proof of such absence, without leave had and obtained, or of such neglect or refusal as aforesaid, to commit such seaman or mariner to the gaol or workhouse, for any time not exceeding thirty days, any law, usage or custom to the contrary notwithstanding, and the charge of apprehending, committing and maintaining such seaman or mariner, during his confinement aforesaid, shall be paid by the complainant, which charge he is hereby authorized to deduct out of the wages due or to be due to such seaman or mariner.

If any person or persons whatsoever shall give credit to or trust any seaman or mariner belonging to any ship or vessel within this province, having signed an agreement or contract to proceed therein as aforesaid, for any sum exceeding five shillings, except by leave of the master or commander of such ship or vessel, he, she or they, so giving credit to or trusting such seaman or mariner as aforesaid, shall for every such offence lose the moneys or goods so credited or trusted.

If any person or persons whatever, after the passing of this act, shall willingly and knowingly entertain, retain, harbour, or keep, or shall directly or indirectly suffer to be entertained, retained, harboured or kept any seaman or mariner belonging to any ship or vessel, and having signed any agreement or contract as aforesaid, in his, her, or their house without the leave, privity or consent of the master or commander of such ship or vessel, he, she or they so offending, shall forfeit the sum of forty shillings sterling for every twenty-four hours such seaman or mariner is harboured, entertained, retained, or kept in his, her, or their house as aforesaid.

Every keeper or keepers of taverns, or tipping houses, or any other person or persons whatever, who from and after the passing of this act, shall sell any wine, punch, beer, ale, cider, or any spirituous liquor whatever, to any seaman or mariner belonging to any ship or vessel, and having signed any agreement or contract as aforesaid, to the amount of more than one shilling and sixpence in any one day, or shall entertain, or suffer any seaman or mariner as aforesaid, to drink or tipple in his, her or their house, or furnish such seaman or mariner with any liquor as aforesaid after the hours of nine of the clock at night unless with the knowledge or by the leave and consent of the master or commander of the ship or vessel to which such seaman or mariner shall belong, such keeper of tavern or tipping house, or such person or persons so offending shall upon proof of such offence, forfeit the sum of twenty shillings sterling, to be recovered and applied as in this act is before directed.

From and after the passing of this act, any and every seaman or mariner, whose agreement or contract entered into with any master or commander of any ship or vessel within this province, for the performance of any voyage therein specified, shall be fulfilled and determined, shall and may demand of, and from the said master or commander a certificate thereof, and of his discharge from such ship or vessel, which certificate such master or commander is hereby required to give under the penalty of five pounds sterling, to be recovered by warrant of distress, and sale of the offender's goods under the hands and seals of any two justices of the peace, for the parish where such offence was committed, one half of which shall be applied to the informer, and the other half to the poor of the said parish; and upon refusal of said master or commander to give such certificate without just cause, any two justices of the peace upon due application and proof thereof, are hereby empowered to give such certificate, which shall be of equal force, as if given by such master or commander; and such justices shall receive for every such certificate so given by them as aforesaid the sum of one shilling sterling, to be paid by such master or commander refusing as aforesaid.

No master or commander of any ship or vessel within this province, shall hire, receive, entertain, or ship any seaman or mariner belonging to, and pretending to be discharged from any other ship or vessel, unless such seaman or mariner shall have a certificate of his discharge as aforesaid, under the penalty of ten pounds sterling, to be recovered and applied as the penalty in this act inflicted upon masters or commanders refusing to give such certificate.

If any person or persons keeping or attending any ferry within this province, shall willingly or willfully transport, or suffer to be transported over such ferry, any fugitive seaman or mariner not having a certificate of discharge as directed by this act, shall upon conviction thereof before any one of the justices of the peace for the parish where such offence was committed, forfeit five pounds sterling.

ABSTRACTS

From the Laws of New-York, interesting to Masters and Mariners.

It shall and may be lawful for the person administering the government of this state, for the time being, by and with the advice and consent of the council of appointment, from time to time to

appoint and commission three proper and discreet persons, to be called and known by the name of justices of the justices court, in and for the city and county of New-York, which said justices shall hold their offices during the pleasure of the said council; and that the said commissions shall issue once at least in every three years.

The said three justices, or any two of them, shall have power and authority, and they are hereby authorized and required to hold a court at the city hall of the city of New-York, and in case of sickness or epidemic disease, or any other casualty, at such other place in the said city as the mayor, aldermen and commonalty of the said city, in common council convened, may direct; which said court shall be called and known by the name of the justices' court of the city of New-York; and shall have jurisdiction to hear, try and determine all actions of debt, detinue, accounts, covenant, trespass on the case, and trespass including trespass on any land or other real estate, wherein the sum or balance due, or thing demanded, shall exceed twenty-five dollars and not exceed fifty dollars; *And also*, all actions and informations upon any statute of this state, and upon the charter or any by-law of the corporation of the said city, where the penalty or forfeiture shall exceed twenty-five dollars and not exceed fifty dollars as aforesaid: *And also*, all actions to be brought by any seaman or mariner, or other person belonging to any ship or vessel in any merchant service, against the owner or owners, master or commander of any such ship or vessel, for or by reason of the non-performance, or breach of any agreement or contract made by such seaman or mariner, or other person with the said owner or owners, master or commander, for services, or compensation for services on board of any ship or vessel, during any voyage performed, or in part performed, by such ship or vessel, notwithstanding such wages, compensation or damages, shall exceed fifty dollars; and the said court shall also have cognizance and power to hear, try and determine all actions to be brought by any owner or owners, master or commander of any ship or vessel, in any merchant service, against any seaman or mariner, or other person belonging to such ship or vessel, for or by reason of the non-performance of any agreement, or contract made by such seaman or mariner, or other person with such owner or owners, master or commander of any such ship or vessel, for services to be performed by him as a seaman or mariner, or otherwise, on board such ship or vessel, for any voyage performed wholly or in part, or intended to be performed, notwithstanding the damages sustained, or sum of money demanded by reason of the non-performance of such agreement or contract shall exceed fifty dollars: *And also*, all actions for assault and battery, or false imprisonment, done or committed by any master or commander of any ship or vessel, in any merchant service, upon any officer, seaman or mariner, or other person on board of, or belonging to such ship or vessel on the high seas, or in any foreign port or place, where such ship or vessel may then be, of which the ordinary courts of law of this state now have cognizance; and all actions for assault and battery or false imprisonment, done or committed by any officer of any such ship or vessel, upon any seaman or mariner, or other person on board of, or belonging to such ship or vessel, or by any seaman or mariner, or other person on board of, or belonging to such ship or vessel, upon the master, commander or other officers thereof, or by one seaman or mariner, or other person on board of, or belonging to such ship or vessel, upon any other seaman or mariner, or other person on board of, or belonging to such ship or vessel upon the high seas, or in any foreign port or place, where such ship or vessel may then be, of which the ordinary courts of law of this state now have cognizance, notwithstanding the damages sustained or demanded by reason thereof, shall exceed fifty dollars; and for the purpose of hearing, trying, and determining all such actions as are hereby made cognizable, before the same court, such court is hereby vested with all such power and authority as is vested in other courts of record in this state, and is hereby made and constituted a court of record. *Provided always*, That nothing herein contained shall be construed to give the said court power to proceed in any of the matters aforesaid, as a court of admiralty or maritime jurisdiction, nor shall the authority of the said court extend to any debt or demand, for any money or thing won, at or by means of any kind of gaming, play or wager, although the same shall not exceed the sum or value of fifty dollars; nor to any action wherein the people of this state shall be concerned, or where the title of any lands shall in any wise come in question, except actions of trespass on land or other real estate, or to any action of assault and battery, or false imprisonment, other than those committed on the high seas or in a foreign port, as is herein before particularly specified; nor to matters of account where the sum total of the accounts of both parties exceeds in the amount or value thereof the sum of two hundred dollars, and those accounts proved to the satisfaction of the court; nor to any action to be brought by or against any executor or administrator, for any debt or demand due to or from the estate of any testator or intestate.

That in all cases where a warrant shall issue out of the said court to be holden before the said justices, if the plaintiff or defendant shall require a longer time than is first appointed by the court to try the said cause, and will, if required, give sufficient security to appear and stand trial on such other day as shall be appointed and pay the debt, damages and costs, in case judgment shall be given against him or her, then the said court shall adjourn the said cause to any time they may think proper and convenient, not exceeding twelve days.

Provided also, That execution may be forthwith issued, whenever judgment shall be given for any sum, in any action which shall be brought in the said court, to be holden before the said justices, by any seaman or mariner, or other person belonging to any ship or vessel, in any merchant service, against the owner or owners, master or commander of any such ship or vessel, for, or by reason of the non-performance or breach of any agreement, or contract made by such seaman or mariner, or other person, with the said owner or owners, master or commander, for services, or compensation for services on board any such ship or vessel, or for wages, or compensation for services on board any such ship or vessel, during any voyage performed, or in part performed, by such ship or vessel,

while such seaman, mariner, or other person was on board such ship or vessel : *And also*, whenever judgment shall be entered as aforesaid, in any action which shall be brought as aforesaid, by any owner or owners, master or commander of any ship or vessel, in any merchant service, against any seaman or mariner, or other person, for or by reason of the non-performance of any agreement or contract made by such seaman or mariner, or other person, with such owner or owners, master or commander of any such ship or vessel, for services to be performed by him as a seaman or mariner, or otherwise, on board such ship or vessel, for any voyage performed wholly or in part, or intended to be performed : *And also*, whenever judgment shall be entered as aforesaid, in any action brought in the said court, to be holden before the said justices, for assault, battery, or false imprisonment, done or committed by any master or commander of any ship or vessel, in the merchant service, upon any officer, seaman or mariner, or other person on board of or belonging to such ship or vessel, upon the high seas, or in any foreign port or place, where such ship or vessel may then be, or in any action of assault and battery or false imprisonment, done or committed by any officer of any ship or vessel in any merchant service, upon any seaman or mariner, or other person on board of or belonging to such ship or vessel, or by any seaman or mariner, or other person on board of or belonging to such ship or vessel, upon the master or commander or other officers thereof, or by one seaman or mariner or other person, on board of or belonging to such ship or vessel, upon another seaman or mariner or other person, on board of or belonging to such ship or vessel, upon the high seas, or in any foreign port or place, where such ship or vessel may then be ; and that in any of the said cases mentioned in this proviso, the person against whom any such execution shall issue, shall not be entitled to any delay, by giving security as herein before mentioned, any thing contained in this act to the contrary thereof notwithstanding.

REMARKS. As this court from its organization is a favourite of seamen, who, aided by their landlords, make a harvest out of the officers of ships, they cannot be too careful in their conduct towards their seamen.

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Wrecks.

If a ship, vessel or boat, or any kind of goods, wares or merchandise, shall be cast by the sea on the land, neither such ship, vessel or boat, nor any thing in them, nor such goods wares, or merchandise shall be adjudged wreck ; but the ship, vessel, or boat, and every thing therein contained, and such goods, wares and merchandise, shall be saved and kept by the view of the sheriff or coroner, or other person appointed for that purpose, who shall cause the same to be appraised, and safely keep them, so that if any person within a year and a day, sue for those goods, and prove that they were his, or lost in his keeping, they shall be restored to him without delay, upon his paying the charges and expenses of saving and keeping the said goods ; but if not, they shall remain to the people of this state, and shall, after the expiration of the said year and a day, be sold at public vendue by the sheriff, coroner, or other person appointed for that purpose, who shall have found or seized the same, who shall account for the same at the exchequer, deducting the charges and expenses of saving and keeping the same, and of such sale : And he that doth otherwise, and is thereof convicted, shall yield damages to the party grieved, and shall be punished by fine or imprisonment, or both, at the discretion of the court or justices, before whom he shall be convicted.

If any merchant, citizen or stranger, or any other, be robbed of his goods upon the sea, and the goods come into any part of this state, and he will sue to recover the said goods, he shall be received to prove the said goods to be his own, by his marks, or by his cocket, or by good and lawful merchants, citizens or strangers, or others ; and upon such proof, the same goods shall be delivered to him without delay.

It shall be lawful for the person administering the government of this state for the time being, by and with the advice and consent of the council of appointment from time to time, by commission under the great seal of this state, to appoint such and so many proper persons in each of the counties of this state bordering on the sea, as they may think necessary, to aid and assist all such ships and vessels as may happen to be stranded on the coasts in the same counties ; and such persons so appointed, shall be and hereby are respectively authorized and required to give all possible aid and assistance to all such ships and vessels, and to the people on board of the same, and to use their utmost endeavours to save the same, and to save, preserve and secure, for the purposes aforesaid, the cargoes of all such ships and vessels, and all goods and chattels whatsoever, which may at any time be cast by the sea upon the land ; and to employ such and so many men for the purpose as they may respectively think proper. And the sheriff, coroner, or other person so appointed as aforesaid, and all persons by them employed, shall have a reasonable allowance out of the same goods so saved and preserved, for saving, preserving and keeping the same. And such sheriff, coroner, or other person so appointed as aforesaid, shall and may detain the same goods until payment thereof ; and in case any dispute shall arise concerning such allowance, the same shall be settled and adjusted by any two or more justices of the peace, dwelling in or near the town or place where the said goods shall be found or saved. And if any person shall take away any goods whatsoever, out of any ship or vessel stranded as aforesaid, or any goods cast by the sea upon the land, or found in any bay or creek, and not deliver the same goods to the sheriff or coroner of the county where the same shall be found, or to one of the persons appointed as aforesaid, within forty-eight hours after taking the

same, or shall secrete any such goods, or convert them to his own use, every person so offending shall yield double damages to the owner of such goods, to be recovered with costs of suit, in any court having cognizance thereof, and be further punished by fine or imprisonment, or other corporal punishment, at the discretion of the court, not extending to life or limb. And it is hereby made the duty of every sheriff, coroner, justice of the peace, and constable, and the persons so appointed as aforesaid, to present all offences and offenders against this act, at the sessions of the peace in their respective counties; and the justices of the peace in their sessions, are hereby authorized and required to bear and determine the same.

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Servants.

By a law for the government of servants migrating into this state, *it is enacted*, That all indentures made between masters, supercargoes or owners of vessels, or other persons in foreign countries, and persons wishing to migrate to this State or the United States, and thus becoming servants as aforesaid, shall be held and received as valid and binding in law, on their arrival within any port or place within this state as if such indenture had been voluntarily entered into by the parties after such their arrival.

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Slaves.

From and after the first day of May, 1810, no person held as a slave shall be imported, introduced or brought into this state on any pretence whatever by any person or persons coming permanently to reside within the same, and that any person residing within this state for the space of nine months, shall be considered as having a permanent residence therein, within the meaning of this act; but it shall not be construed to extend to such persons as may reside within this state for a shorter period; and if any person so held as a slave shall be so imported, introduced or brought into this state contrary to the true intent and meaning of this act, he or she shall be and is hereby declared free.

To evade the existing laws of this state concerning the importation and transfer of slaves, persons residing in adjacent states have manumitted their slaves and afterwards induced them to indent or bind themselves for a term of years to certain persons citizens of this state, receiving at the same time for such term of service, a price or consideration equal to the full value of the slave, whereby the persons so manumitted are not only reduced back to a state of virtual bondage, but after having grown so old in service as to be incapable of gaining a subsistence, are turned out to become a charge on the community, to the great burthen of the public, and against the true intent and meaning of the laws of this state; therefore,

No indenture, contract or bond, conditioned for personal service, hereafter entered into, or made by any person who has been holden or possessed as a slave by any person without this state, shall be in any manner obligatory within this state on the person so bound to service, but the same is hereby declared to be utterly void; and if any such person so having been holden as a slave shall be indentured or bound contrary to the intent of this act, he or she shall thereafter be free.

No slave shall hereafter be imported or brought into this state, unless the person importing or bringing such slave shall be coming into this state with intent to reside permanently therein, and shall have resided without this state, and shall also have owned such slave at least one year next preceding the importing or bringing in of such slave; *And further*, That every person importing or bringing any such slave into this state, shall within one year thereafter, make oath or affirmation before a judge, mayor, recorder, alderman, or justice of the peace, that such person hath resided out of this state during one year next preceding the importing or bringing of such slave into this state, and that during the same year such slave hath been the property of such person; and a certificate signed by the judge, mayor, recorder, alderman, or justice before whom the said oath or affirmation shall have been made, certifying that the said oath or affirmation hath been made by the person importing such slave, shall within one month after the making thereof be filed in the office of the clerk of the city or county wherein the person importing such slave shall reside; and if any person whatsoever shall bring or import into this state any slave contrary to the true intent and meaning of this act; or being permitted by this act to import and bring such slave into this state, shall neglect to make such oath and file such certificate as aforesaid, then every such slave shall be free.

If any person whatsoever within this state, shall under any colour or pretext whatever, sell as a slave or transfer for any period whatever any person who shall hereafter be imported or brought into this state as a slave, every person so selling or transferring such slave, and his or her factor or agent making such sale or transferring shall be deemed guilty of public offence, and shall for every such offence forfeit the sum of two hundred and fifty dollars, to be recovered with costs of suit by any person who shall sue for the same, by action of debt in any court of record having cognizance thereof; the one half of which forfeiture shall be paid to the treasurer of this state for the use of the people thereof, and the other half to the person who shall sue for the same to effect: *And further*, That every

persons so imported or brought into this state and sold contrary to the true intent and meaning of this act shall be free.

If any person shall export any slave, or any servant born of a slave and made free by virtue of this act, to any place without this state, except as is hereinafter provided, every person so exporting or attempting to export such slave or servant, and every person aiding or consenting to such exportation or attempt to export, shall be deemed guilty of a public offence, and shall for every such offence forfeit the sum of two hundred and fifty dollars, to be recovered and paid, in like manner as the forfeiture mentioned in the last preceding section is directed to be recovered and paid, and the slave or servant so exported, or attempted to be exported shall be free.

It shall be lawful for any person, not an inhabitant of this state, who shall be travelling to or from, or passing through this state, to bring with him any slave, and take such slave with him from this state.

Every master of a vessel who shall receive on board his vessel for the purpose of carrying out of this state any slave for whose exportation such license as aforesaid hath not been obtained, shall be deemed guilty of a public offence, and shall forfeit the sum of two hundred and fifty dollars for every slave so received on board, to be recovered and paid in like manner as the forfeiture last before mentioned is directed to be recovered and paid.

If any person shall employ, harbour, conceal or entertain any slave or such servant as aforesaid, knowing such slave or servant to belong to any other person, without the consent of such owner, such person shall forfeit to the owner of such slave or servant the sum of twelve dollars and fifty cents for every twenty-four hours, and in that proportion for a greater or less time, while such slave or servant shall have been so employed, harboured, concealed or entertained; but such forfeiture shall not in the whole exceed the value of such slave, or of the service such owner is entitled to receive from such servant; *And further*, If any person shall be guilty of harbouring, entertaining or concealing, or of assisting to convey away any such slave or servant and such slave or servant be lost or die, such person shall forfeit to the owner of such slave or servant, the value of such slave, or of the service such owner shall be entitled to receive from such servant; all of which forfeitures may be recovered by action of debt, with costs of suit in any court having cognizance thereof.

If any person shall trade or traffic with any such slave or servant, either in buying or selling without the consent of the owner of such slave, or the master or mistress of such servant, such person shall for every offence forfeit treble the value of the articles so bought or sold, and also the sum of twelve dollars and fifty cents to the owner of such slave or servant, to be recovered with costs against such person by action of debt, in any court having cognizance thereof, and every contract so made with such slave or servant shall be void.

If any person shall sell any rum or other strong liquor to any such slave or servant, without the consent of the owner of such slave, or the master or mistress of such servant, such person shall forfeit for every such offence the sum of five dollars, to be recovered in the name of the owner of such slave or servant with costs, by action of debt in any court having cognizance thereof, the one half of which forfeiture when recovered shall be paid by such owner to the overseers of the poor of the city or town where such offence shall be committed.

If any person shall by theft or trespass committed by any such slave or servant, sustain damage to the value of twelve dollars and fifty cents or under, the owner of such slave or the master or mistress of such servant shall be liable to make satisfaction for the same to the party injured to be recovered by action of debt, with costs, in any court having cognizance thereof.

If any such slave shall strike a white person, it shall be lawful on proof of the same by the oath of such person for any justice of the peace to commit such slave to gaol, who shall thereupon be tried and punished as in cases of petit larceny according to the act, entitled "An act declaring the powers of the courts of general sessions of the peace, and the powers and duties of justices of the peace;" but in all *other cases* such slave shall have the privilege of trial by jury.

No such slave shall be a witness in any case except for or against another slave in criminal cases.

Where any slave shall hereafter be convicted in the supreme court, or in any court of Oyer and Terminer and gaol delivery or general sessions of the peace, of any crime not punishable with death, or with imprisonment in the state prison for life, it shall be lawful for the master or mistress of such slave to cause such slave to be transported out of this state: *Provided*, That the court before which such conviction may be had shall previously certify, that the crime whereof such slave shall be convicted is of such a nature that transportation would be a proper punishment; *And provided also*, That such court may also inflict such other punishment on such slave as from the nature of the offence and the course of the law they may judge proper.

Slaves and Servants.

It shall and may be lawful for every person who shall have resided ten years within this state and who shall be about to remove permanently therefrom, to carry with him or her every such slave as shall have been the property of such person during ten years next preceding: *Provided*, That before such person shall attempt to carry away such slave, out of this state, he or she shall make legal proof, before a judge of the court of common pleas of the county, or before

the mayor or recorder of the city in which he or she last resided, that such slave hath been his or her property during ten years then next preceding; and shall also prove to the satisfaction of the said judge, mayor or recorder, by the oath of two credible witnesses, who shall be known to the said judge, mayor or recorder, or who shall be proved to the satisfaction of such judge, mayor or recorder, to be credible witnesses, that such person intending to carry away such slave out of this state, hath resided within this state during the ten years next preceding; and that such slave hath been in the service or employment of such person, as a slave, during that time, and shall obtain a license from such judge, mayor or recorder to carry such slave out of the state: *And provided also*, That nothing in this act contained shall be deemed or taken to authorize any person, so residing as aforesaid, who shall be entitled to any slave or servant for a time only, or shall hold such slave or servant upon condition of services for a term of years and who shall be about to remove permanently from this state, to take such slave or servant therefrom; and every master of a vessel, who shall receive on board his vessel for the purpose of carrying out of this state, any slave for whose exportation such license as aforesaid shall have been obtained, shall be deemed guilty of a public offence, and for every such offence shall forfeit the sum of two hundred and fifty dollars, for every slave so received on board, to be recovered and paid in like manner as the forfeiture is directed to be recovered and paid, in and by the fifth section of the said act.

If any person shall knowingly and wilfully swear falsely on any oath or deposition made or taken by virtue of, or pursuant to this act, or by virtue of or pursuant to the said act concerning slaves and servants, such false swearing shall be deemed and taken to be wilful and corrupt perjury, and the person thereof convicted to be guilty of wilful and corrupt perjury, and be liable to all the pains and penalties thereof.

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Quarantine Law.

There shall continue to be a health office in the city of New-York, under the superintendance of the board of health, and three health commissioners, who shall be ex-officio members of the said board, which commissioners shall consist of a health officer, who shall reside at Staten Island, from the fifteenth day of April to the first day of November, and the remainder of the year at the city of New-York, and perform all the duties enjoined on him by this act; of a resident physician, who shall reside in the city of New-York, whose duty it shall be to visit all sick persons who may be reported to the board of health, or to the commissions, conformable to the seventeenth section of this act; and of a health commissioner, whose duty it shall be to take charge of the receipts and disbursements of all monies appropriated to the use of the marine hospital establishment; for the due performance of which he shall execute a bond to the people of this state, with one or more sureties, in the sum of five thousand dollars, which bond shall be taken and approved by the mayor or recorder of said city; and further, it shall be the duty of the said resident physician and health commissioner to meet daily at the health office from the thirty-first day of May to the first day of October, with one or more members of the board of health, for the transaction of business, and they shall further perform all other duties required of them by this act; that the said commissioners shall be appointed by the person administering the government of this state, by and with the advice and consent of the council of appointment.

All vessels arriving in the port of New-York from any port, island, or other place in Asia, Africa, the Mediterranean, America lying south of Georgia, or from any West India, Bahama or Bermuda islands, and all vessels from foreign ports having on board forty or more passengers or on board of which vessel any person shall have died while at a foreign port or on the homeward passage, or shall have been sick on the homeward passage, shall anchor at the place assigned for quarantine, and be subject to the examination of the health officer at any time in the year, under the regulations herein prescribed; and all vessels arriving in the port of New-York, from any port, island, or other place in the United States, south of Cape Henry, between the thirty-first day of May and the first day of October in any year, shall anchor at the place assigned for quarantine, and shall be subject to the examination of the health officer, and to such regulations as may be deemed expedient by him, and any master or commander of a vessel offending in the premises shall be considered as guilty of a misdemeanor, and on conviction thereof shall for each offence be fined by any court having cognizance of the same, in a sum not exceeding two thousand dollars, or be imprisoned for a term not exceeding twelve months.

Whenever a vessel shall arrive at the anchoring place for vessels at quarantine, from a place where yellow fever or other pestilential fever prevails, or if, during her voyage, any person has died or been sick on board with such fever, the master, owner or consignee shall forthwith, upon the requisition and under the direction of the health officer, cause such vessel to be unloaded, cleansed and purified, and that until then no permit shall be granted for her to proceed to the city of New-York; and that every vessel under the above circumstances, arriving between the thirty-first day of May and the first day of October, shall be detained at least thirty days at quarantine after her arrival, and twenty days after her whole cargo has been discharged, and every part of the inside of such vessel thoroughly white-washed, except such parts as may be painted or varnished, which shall be cleansed as the health officer may direct, during which time the said vessel shall be as often white-washed as the health officer shall judge requisite, but not less than three times, and four days intervening between each time, and wind sails shall be con-

stantly kept in each hatchway, the weather permitting; and it shall be the duty of the health officer, whenever he shall judge such vessel to be clean, safe and free from infection, to report her and her ballast to the board of health, who shall be authorized to give further directions concerning her; and no part of the cargoes of such vessels shall be conveyed to the city of New-York without a permit in writing from the health officer, nor shall any of the crew (except the captain, under certain restrictions as the health officer may direct) or passengers of the aforesaid vessels, be permitted to go to the city of New-York until twenty days after the last death or sickness of yellow or pestilential fever which has occurred on board, or until twenty days after such vessel shall have sailed from any port where a pestilential fever prevails; and every master, owner or consignee neglecting or refusing to comply with such requisition of the health officer, shall be considered guilty of a misdemeanor, and upon conviction thereof, shall be fined in a sum not exceeding two thousand dollars, or be imprisoned for a time not exceeding twelve months, by any court having cognizance thereof.

All vessels arriving in the port of New-York, from any place in the West-Indies, in America south of St. Mary's in Georgia, and north of the equator, from the coast of Africa (except the Cape of Good Hope) between the thirty-first day of May and the first day of October in any year, shall remain at quarantine not less than four days after their arrival, and that no intercourse shall be permitted during that period between the crew or crews of said vessels and the city of New-York, unless under such restrictions as shall be prescribed by the health officer, during which time the said vessels shall be cleansed and ventilated, and the clothing and bedding of the crew and passengers washed and aired; but all passengers arriving in those vessels shall daily report themselves at the health office in the city of New-York for the first four days after their arrival, should they so long remain in the city, and that the aforementioned vessels shall moreover remain at the quarantine ground for a longer term than the aforesaid four days, if in the opinion of the health officer it shall be proper; and after such vessels shall be permitted to proceed by him, they shall not approach within three hundred yards of that part of the island of New-York which lies southward of a line drawn from the house owned and occupied by William Bayard on the North River, and Stuyvesant's dock on East River; but nevertheless, if the owners or consignees of such vessels shall choose to discharge the whole or part of said cargo, the same if sound and proper to be discharged, may be unloaded or discharged by boats or lighters, subject to the regulations of the commissioners of health; and the said vessel or vessels being unloaded of her or their cargoes, and the master or owner of such vessel or vessels being desirous of coming to the dock, they shall make application to the board of health, who shall send a trusty person to see said vessel and her ballast properly cleaned, for which duty he shall be paid by the master or owner of said vessel the sum of five dollars, and when he shall report the same to be so, they may then direct such vessel or vessels to such wharves as they may deem proper; and that every master, commander, consignee or passenger of any vessel offending against the provisions of this section, shall be considered guilty of a misdemeanor, and shall for every such offence, be fined in a sum not exceeding one thousand dollars, or be imprisoned for a time not exceeding six months.

All vessels arriving in the port of New-York, from any port, island, or other place in the Mediterranean, in Asia (except Canton and Calcutta) in America, south of the equator, or from the Madeira, Canary, Cape de Verd, Bermuda or Bahama islands, between the thirty-first day of May and the first day of October in any year, shall remain at least two days at quarantine, for the purpose of cleansing and ventilating, during which time the health officer shall transmit a report respecting each vessel to the board of health and receive their directions, whether such vessel shall be any longer detained at quarantine, and if permitted to proceed to the city, to what wharf in the said city she may be permitted to come: *Provided*, that such vessel coming from the above mentioned places, shall not have been at any of the places described in the section immediately preceding, after the fifteenth day of May then next preceding; and further, that all vessels bound to a place eastward of the said city, and beyond this state, may under any circumstances be permitted to proceed through the sound without coming to anchor near the said city, or holding any intercourse with it; and that every master, commander, owner or consignee of any vessel offending in the premises, shall be considered guilty of a misdemeanor, and shall for every offence, be fined in a sum not exceeding two thousand dollars, or imprisoned for a time not exceeding twelve months.

All coasting vessels, on board of which a person or persons may have died or been sick of malignant, yellow, or pestilential fever, shall, after having their cargoes discharged and been properly cleansed, be reported as such to the board of health, who may permit such vessels to come to the wharves of the city, if they judge them safe.

It shall be lawful for the governor of this state, or in his absence, the mayor of the city of New-York, or in the absence of both of them, the recorder of the said city, from time to time, whenever it shall appear advisable, to issue his order, declaring what other vessels, than such as are before designated in this act, shall be subject to quarantine: that in like manner it shall be lawful for him to issue his proclamation, prohibiting or regulating the intercourse by land and ferries between the city and county of New-York, and any other place where he shall learn that a pestilential or infectious disease doth prevail; and that all persons offending in the premises shall be liable to punishment as for a misdemeanor, by fine and imprisonment at the discretion of the court having cognizance thereof; and moreover, it shall be lawful for the said commissioners of health to cause any vessel subject to quarantine, which before she shall have been so visited, examined and reported as aforesaid, shall be brought to anchor elsewhere in the port of New-York than at the quarantine ground, and also all other vessels which in the judgment of the health officer or any of the said commissioners there shall be reason to believe are

infectious, or shall have on board articles suspected of containing infectious matter, whether brought from foreign countries, or generated or accumulated on board, to be removed to and brought to anchor at the anchoring place for vessels at quarantine, and to cause all persons, articles or things which may have been landed to be seized and arrested, and to be returned forthwith on board such vessel, or removed to the said hospital; and it shall be further lawful for them to cause all persons who shall come into this state contrary to the prohibitions and regulations in such order or proclamation as aforesaid, to be apprehended, and if well to be conveyed to the vessel or place whence they last came, and if sick, to be removed to the said hospital.

No vessel subject to the examination of the health officer, shall approach the city of New-York beyond the place assigned for quarantine without a written permit for that purpose from him; and that the master or commander of every such vessel arriving at the city of New-York, shall, within twenty-four hours after such arrival, deliver such permit to the commissioner of health, or to such person as he shall direct; and every master or commander neglecting or refusing to comply with either of these directions, shall for every such offence be considered guilty of a misdemeanor, and on conviction thereof, shall be fined by any court having cognizance thereof, in a sum not exceeding two hundred dollars, or be imprisoned for a time not exceeding twelve months.

Quarantine shall continue for such time as the health commissioners shall seem proper, and no vessel otherwise subject to quarantine shall be exempted therefrom by reason of having previous thereto entered into any of the ports of the United States, unless such vessel shall have discharged all of her cargo, and been well cleansed, and remained at least twenty days after unloading the whole of her cargo, in some one of the aforesaid ports; and the several branch pilots and their deputies belonging to the port of New-York, shall use their utmost endeavors to hail every vessel coming into the said port from sea, and shall ask and demand of the master or commander of any such vessel, whether any person has died on board, or any person has been sick on the passage, or if any pestilential fever existed amongst the inhabitants of the port whence she sailed, and on being answered in the affirmative to any of the said questions, shall immediately give notice to the master or commander of such vessel, that he and his vessel, crew, passengers and cargo are subject to quarantine, and shall forbid them to proceed further than the anchorage assigned for quarantine, and shall direct him to anchor his vessel there, and to remain there until he shall receive further directions from the health commissioners, or in their default, from the governor of this state, or in his absence from the mayor or recorder of the aforesaid city, and all such commanders of vessels are strictly forbid from putting on shore any person who shall have belonged to or performed the voyage in such vessel, and from unloading, or putting on board any boat or vessel any person or persons, clothing, goods, merchandize or freight from or out of his vessel, until directions to that effect shall be given him pursuant to this act; and every master or commander of any vessel who shall give false information relative to the condition of his vessel, crew, passengers, freight or cargo, or the health of the place or places whence she came, when hailed by any pilot, or shall notwithstanding being forbid by such pilot, bring his vessel nearer the city than the ground assigned for quarantine, or land any passengers, or unlade any of his cargo, shall be considered guilty of a misdemeanor, and on conviction thereof, shall be fined by the court having cognizance of the same in the sum of two hundred dollars for each offence; and every passenger, or any other person on board such vessel, departing therefrom or unlading any of the cargo thereof, without leave first obtained from the commissioners aforesaid, shall be considered guilty of a misdemeanor, and be punishable, if convicted, in like manner as the master and commander last mentioned.

It shall be the duty of every pilot who conducts a vessel into the port of New-York, to take care that no violations of this act are committed by any person on board, and if any such are committed, and not reported by such pilot to the health officer as soon as may be, such pilot shall be considered as guilty of a misdemeanor, and shall be fined in a sum not exceeding two hundred dollars; and further, that it shall be the duty of every such pilot to deliver such printed extracts from this act as shall be entrusted to him by the health officer for that purpose, to every master of a vessel piloted by him into the port of New-York; and that every pilot for neglecting or refusing so to do, shall be deemed guilty of a misdemeanor, and punishable as last aforesaid.

It shall be lawful for the health officer, and he is hereby authorized and required without delay, to enter on board of every vessel coming into the port of New-York under the circumstances aforesaid, and there to make strict search, examination and inquiry as to the health of the officers, seamen and passengers, and into the state and condition of the vessel, her cargo and contents, respectively, and to report his discovery and opinion thereon with all speed to the board of health between the thirty-first day of May and the first day of October, for their consideration; and in order that he may be more effectually enabled to make examination whether vessels ought to be subject to quarantine, it shall be lawful for him to put all such questions to the persons on board as he may judge needful and proper to that end; and the persons to whom such questions shall be put may be required to answer the same on oath, which oath he is hereby authorized to administer accordingly; and every person swearing falsely in the premises shall be liable to the pains and penalties of wilful and corrupt perjury; or if any person shall oppose or obstruct the health officer in performing the duties required of him by this act, he shall be considered as guilty of a misdemeanor, and shall be fined in a sum not exceeding five hundred dollars.

No boat from any outward or inward bound vessel shall land at the quarantine ground after sunset, nor shall boats of any description at any time pass through the range of vessels lying at quarantine without the permission of the health officer; and that any person offending against either of these directions shall be considered guilty of a misdemeanor, and shall be fined in a sum not exceeding fifty dollars.

If the master, owner or consignee of any vessel arriving in the port of New-York, shall neglect or refuse to remove such vessel to the place and in the time required by the health commissioners, it shall be the duty of the said commissioners, and they are hereby empowered to cause the same to be done at the expense and risk of such master, commander, owner or consignee, and the monies so expended shall be recoverable by the said commissioners, with costs, by an action on the case in their own names, against such master, commander, owner or consignee, in any court having cognizance thereof.

No master of a vessel or any other person whatever, shall, between the days aforesaid, remove any sick person from any vessel lying at any wharf, or in the harbour of the city of New-York, before the name of such sick person has been reported to the health officer, and a written permit granted for the purpose of such removal; and that any person neglecting or refusing to comply with either of these directions, shall be considered guilty of a misdemeanor, and be fined in a sum not exceeding one hundred dollars, or be imprisoned for a time not exceeding six months, by any court having cognizance thereof.

Cotton in bales which is the produce of any part of the United States, or the territories thereunto belonging, shall not be brought into the city of New-York south of a line commencing at Spring-street on the North River, running through the same to the Bowery, and thence down the Bowery to Grand-street, through Grand-street to Walnut-street, through Walnut-street to the East River, between the thirty-first day of May and the first day of October in any year; and further, that such cotton arriving, which in the opinion of the board of health or health officer may be dangerous to be brought into the city from deaths or sickness of malignant fever occurring on board vessels having the same on board or from a pestilential fever prevailing at the place whence such vessels sailed; and no damaged cotton of any kind, nor any cotton from foreign ports, shall be brought into the city of New-York during the period aforesaid, but shall be landed at the public stores at the quarantine ground; nevertheless, it may be put on board outward bound vessels lying in the stream (at least three hundred yards from the wharves of the city) which vessels shall not again approach nearer the said wharves with the said cotton on board, under the penalty of the said cotton being seized and sold by the health commissioners for the benefit of the marine hospital; and that all hides arriving in the port of New-York between the thirty-first day of May and the first day of October in any year, shall be discharged at the quarantine ground; and if in a sound state may be taken to any place in said city, north of said line beginning at Spring-street on the North River, and along said street to the Bowery, and from thence down the Bowery to Grand-street, and through Grand-street to Walnut-street, and through Walnut-street to the East River; but it shall be lawful to bring sound hides from the quarantine ground or other places of deposit in the city north of said line, by water only, to be immediately taken on board of vessels while lying at any of the wharves of said city, for exportation or transportation out of the said city, provided they are not relanded therefrom in said city contrary to this act; and should either of the above articles be brought into said city contrary to the true intent and meaning of this act, they shall be seized and sold by the health commissioners for the benefit of the marine hospital; and further, that no lighters shall be engaged to receive the cargoes of vessels discharging at quarantine, but those permitted by the health officer.

The hospital erected on the easterly part of Staten Island, shall continue to be denominated the marine hospital, and shall, together with the other buildings and improvements made or to be made thereon by the said commissioners, with the approbation of the said person administering the government of this state, or in his absence, the mayor of the said city, and the land adjoining the same and belonging to the people of this state, be holden by the health commissioners in trust for the use of the people of this state, and the purposes specified in this act; and all vessels subject to quarantine shall come to anchor as near as may be to the said hospital, which is hereby declared to be the anchoring place for vessels at quarantine, between the fifteenth day of April and the first day of November, and the remainder of the year off the battery, in the East or North River: that the said health officer shall be physician of the said hospital, and the said commissioners shall in other respects have the superintendence thereof, and employ mates, nurses and attendants, and furnish the health officer at all times a convenient boat, with men sufficient to row the same, and provide bedding, clothing, fuel, provisions, medicine, and such other matters as shall be requisite therein; and it shall be lawful for them to make reasonable rules and orders for the government and management of the said hospital.

No person unless authorized by the health officer or board of health, shall go within the enclosure of the quarantine grounds, and that every person so transgressing, shall be considered guilty of a misdemeanor, and fined in a sum not exceeding one hundred dollars, or be imprisoned for a time not exceeding thirty days by any court having cognizance thereof.

Every diseased person duly landed or sent to the marine hospital, shall be there kept or maintained until the health officer shall grant him or her a discharge in writing; and if before obtaining a discharge as aforesaid, any such person shall elope or be absent beyond the time limited and designated as above mentioned, it shall be lawful for the health officer, or any constable or other person whom he shall call to his assistance, and they are hereby enjoined so and required to pursue and apprehend the person so eloping or absent, and there again deliver him or her, to be detained until discharged as aforesaid; and any person so eloping or absenting himself or herself from the marine hospital, or any diseased person in the marine hospital refusing or neglecting to obey the directions of the health officer and the orders and regulations of the health commissioners, shall be considered as guilty of a misdemeanor, and as such shall be punishable by any court having cognizance thereof.

Colours designating a vessel subject to quarantine, shall be fixed in the main shrouds, halfway

between the main deck and topmast of such vessel, and there remain until the expiration of her quarantine; and that if the master or commander of any such vessel shall not comply with this direction, or if the master or commander of any vessel not subject to quarantine shall exhibit such signal or continue such signal after being ordered by the health officer to remove it, he shall forfeit for every such offence the sum of fifty dollars, and the further sum of three dollars for every hour he shall so offend, to be recovered by the health commissioners, with costs, in an action of debt in their own names, in any court having cognizance thereof.

Upon complaint being made in writing by one or more of the health commissioners to the wardens of the port of New-York, charging any pilot with neglect or violation of any of the duties herein prescribed or enjoined upon him, it shall be the duty of the said wardens of the port forthwith to suspend such pilot from piloting any vessel until he shall have entered into recognizance before one of the justices of the peace for the city and county of New-York, in the sum of two hundred dollars, with sufficient sureties to answer to the offence wherewith he is charged, at the next general sessions of the peace to be held in the city and county of New-York; which offence the said court is hereby authorized to try and determine, and to impose such fine as they may deem proper, not exceeding the sum of two hundred dollars; and it shall be the duty of every pilot who shall conduct any vessel subject to quarantine into the port of New-York, to bring said vessels to anchor within the buoys marking the quarantine anchorage; and every pilot neglecting or refusing to perform any of the duties required of him by this act, or permitting any vessel or boat to come along side of such vessel which such pilot shall have the direction of, or permitting any thing to be thrown into such vessel or boat, shall, in addition to the above penalties, forfeit for every such offence the sum of twenty-five dollars, to be recovered by the health commissioners, with costs, in an action of debt, in their own names, in any court having cognizance thereof.

It shall be lawful for the health officer whenever he shall judge it necessary to prevent infection, to cause any bedding or cloathing arriving in a vessel subject to quarantine to be destroyed, and it shall also be lawful for the board of health in said city, whenever they or a majority of them shall judge it necessary, to cause any cargo or part of a cargo that may be putrid, or in their opinion dangerous to the health of said city, to be in like manner destroyed.

The said commissioners, or either of them, are hereby authorized and required to demand and receive, and in case of neglect or refusal, to sue for and recover in their own names or in the name of either of them, with costs of suit, from the captain or commander of every vessel which shall hereafter enter the port of New-York from any foreign port, the following sums of money, to wit: for each captain or commander or cabin passenger, one dollar and fifty cents; for each steerage passenger, mate, sailor or mariner, one dollar; and from each master, mate, sailor or mariner of every coasting vessel which shall hereafter enter the said port twenty-five cents; which several sums shall be demandable of the captain or commander of every such vessel, and on payment thereof every such captain or commander shall and may lawfully demand and receive from every such person on whose account respectively the same shall have been paid, the monies paid; and the said monies so to be received by the said commissioners, or either of them, shall be appropriated to the use of the said marine hospital deducting therefrom the sum of two and a half per cent, which they are hereby authorized to retain as a compensation for collecting the same.

The compensation of the resident physician and of the other commissioner, other than the health officer, shall be to each of them one thousand dollars per annum, to be paid out of the monies by this act appropriated for the use of said marine hospital; and that the health officer shall be entitled to receive as physician to the said hospital, the sum of four hundred and fifty dollars per annum, to be paid as aforesaid; and also for his services in searching and examining vessels from foreign ports in pursuance of this act, the sum of five dollars for each vessel so by him examined, to be paid by the master or commander of the same, and the health officer shall also be entitled to receive from the master or commander of every vessel arriving in the port of New-York from any port, island, or other place in the United States south of Cape Henry, between the thirty-first day of May and the first day of October in any year, the sum of two dollars for each vessel above one hundred tons; and the sum of one dollar for each vessel below one hundred tons so visited by him; and further it shall be lawful for the health officer to appoint an assistant, who may perform all the duties required of said health officer, in case of sickness or absence, but for whose conduct he shall be responsible, and such assistant shall take an oath well and faithfully to execute the duties of his said office.

It shall be in the power of the mayor of the said city, or of the board of health, to order to the quarantine ground, or some other place of safety, any vessel or vessels at the wharves, or in the vicinity of the said city, which he or they may deem prejudicial to the public health; and in case any master, owner or consignee of such vessel shall refuse or neglect to obey such orders, the persons so offending shall be considered guilty of a misdemeanor, and shall be fined in a sum not exceeding one thousand dollars, or imprisoned for a term not exceeding twelve months; and also, in case the master, owner or consignee cannot be found, or shall refuse to neglect to obey such orders, the mayor of the city of New-York, or the board of health, shall have power to remove as aforesaid such vessel or vessels, at the expense of the master, owner, or consignee.

All vessels having on board any person infected with any malignant or pestilential fever, or coming from any place whatsoever infected therewith, shall not come into any other of the ports or harbours of this state until they shall have performed quarantine for such time and in such manner as the persons herein after mentioned shall think proper to direct, to wit: For the cities of Albany and Hudson, and upon Hudson's river opposite to the said cities, and within one mile above or below the same, the person administering the government of this state, and in his ab-

sence from the said cities respectively, the mayor, and in his absence, the recorder of the said cities respectively; and for any town in this state, bordering or lying upon any port or harbour of this state, and upon the waters opposite to the same towns, any two or more justices of the peace residing therein; and if any person subject to quarantine as aforesaid shall violate any of the regulations to be prescribed respecting the same as aforesaid, shall be considered guilty of a misdemeanor, and shall be fined by any court having cognizance thereof, in a sum not exceeding five hundred dollars.

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Ships liable for Debts.

Ships or vessels of all descriptions, built, repaired or equipped in this state, and owned by any person or persons not resident therein, shall be liable for all debts contracted by the master or commander, owner or consignee thereof, on account of any work done, or any supplies or materials furnished by any mechanic, tradesman, or others, for, on account, or towards the building, repairing, fitting, furnishing or equipping such ships or vessels, and that debts so contracted shall be a lien upon such ships or vessels, their tackle, apparel and furniture; and shall have preference to any and all other debts due and owing from the owner thereof, except mariners' wages.

Any person or persons, whose demand for materials furnished or labour done, for any such ship or vessel, amount to one hundred dollars, may apply to the judge or justice of any court of record within this state, having cognizance thereof, where such ship or vessel owned as aforesaid then actually is, or where such work shall have been done, or supplies furnished; and on requisition of the said party or parties, after he or they shall have made oath or affirmation to their account, which shall be left with the said judge or justice, it shall be lawful for the said judge or justice to issue his warrant, directed to the sheriff of the city or county, commanding him to attach, seize, and safely keep such ship or vessel, her tackle, apparel and furniture.

Upon the return of such attachment, the plaintiffs may join in a declaration against the said ship or vessel, setting forth briefly their demands, and alleging work to have been done, and the articles to have been furnished at the request of the owner, master or consignee, as the case really was, and averring demand and refusal of such owner, master or consignee, to which declaration shall be annexed the accounts of the respective plaintiffs; and it shall be lawful for the court in which such action shall be brought after judgment by default, or issue joined, to refer the said demands or accounts to three indifferent persons, to be named by the said court: and the same proceedings shall be had in regard to such reference, and such further proceedings as is provided by the second, third and fourth sections of the act, entitled *An act for the amendment of the law, and the better advancement of justice*, passed the 27th of February, 1788.

If the master, owner or consignee, of such ship or vessel, shall, before final judgment is entered, appear before one of the judges or justices of the said court, and enter into bonds with such sureties, as in the opinion of the said judge or justice will be sufficient to answer and satisfy all the demands which shall then be actually exhibited against such ship or vessel, or discharge the same, and pay the costs of suit; then the said ship or vessel shall be discharged from the attachment, and be permitted to proceed on her voyage.

The said lien shall cease immediately after such ship or vessel shall have left this state.

Where any vessel or part thereof shall be attached, the judge who issued the warrant may cause such vessel or part thereof to be valued by indifferent men, and if any person will give security, to be approved by the said judge, to the people of this state for the benefit of the creditors of such debtor, to pay the amount of such valuation to the trustees, the said judge shall cause such vessel to be discharged from the attachment.

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Masters liable for Passengers.

Every ship or vessel from which aliens shall have landed without permission from the mayor or recorder in writing, shall be liable for the said penalties and may be proceeded against by information in the said supreme court and by attachment and seizure grounded thereon, unless the owners thereof shall give bond with sufficient sureties to the sheriff serving such attachment for the payment of the said penalties and every of them, which may have been incurred during or since the last voyage of the said ship or vessel, or for paying the value of such ship or vessel, towards the satisfaction of such penalties as may have been so incurred by suffering any alien to land as aforesaid; and such value shall be ascertained by the wardens of the port of New-York or any two of them, and such bonds shall be assignable as bail bonds are by law, and be subject to such orders respecting the same as the said supreme court may judge it proper to make.

Whenever any person so brought in any such ship or vessel and being a citizen of the United States, shall by the mayor or recorder be deemed likely to become chargeable to the said city, the master of such ship or vessel shall upon an order for that purpose remove the said person without delay to the place of his last settlement, and in default thereof shall be bound to pay all such charges and expenses as the said city shall or may sustain, or be put unto in and about the maintenance and removal of such person, to be sued for, and recovered in like manner as the several penalties herein before mentioned are directed to be sued for and recovered.

Searching of Vessels.

If any person shall lade or attempt to lade on board any vessel, with intent to ship or export the same direct out of this state, any flour or meal not branded as aforesaid by one of the inspectors, such person shall forfeit the same; and if any person shall have exported any flour or meal out of this state not branded by one of the inspectors as aforesaid, such person shall forfeit and pay the sum of five dollars for every cask of flour or meal so exported.

It shall be lawful for any inspector of flour and meal, to enter on board of any vessel between sun-rise and sun-set, to search for flour or meal that he may have reason to suspect has been shipped contrary to the true intent and meaning of this act; and if any person shall hinder or interrupt any such inspector in so entering on board and searching, every such person shall forfeit and pay one hundred dollars, to be recovered in any court having cognizance thereof.

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Wardens, Pilots and Pilotage.

There shall be and hereby is established a board of wardens for the port of New-York, to consist of the masters and wardens of the said port for the time being; and that it shall and may be lawful to and for the person administering the government of this state for the time being, by and with the advice and consent of the council of appointment, from time to time as often as shall be necessary, to appoint one fit and proper person to be master, and other fit and proper persons to be wardens of the said port of New-York, who shall respectively hold their offices during the pleasure of the said council; and that the said master and wardens, and their successors in office, shall compose the said board of wardens hereby established, and shall be called and known by the name of "the Master and Wardens of the port of New-York," and shall have full power and authority to have and use a common seal, with such device as they may think proper, and the same to break, alter and renew at their pleasure; and further, that all fines, penalties and forfeitures arising under this act, or the rules and regulations to be made by the said board of wardens in pursuance thereof, shall and may be sued for and recovered in any court having cognizance thereof, by the said board of wardens, or their successors by their said name of the master and wardens of the port of New-York.

Each and every person who hath been or at any time hereafter shall be appointed to be master or warden of the port of New-York, shall, before he enters upon the duties of his office take and subscribe an oath or affirmation before the mayor or recorder, or one of the aldermen of the city of New-York, in the following words: "I will well, truly and faithfully, according to the best of my skill and understanding, execute and perform the powers and duties vested in or enjoined upon me by law as master (or as one of the wardens as the case may be) of the port of New-York," which oath or affirmation shall be filed in the office of the clerk of the city and county of New-York.

The said board of wardens shall appoint a clerk, and shall keep an office in the city of New-York, at which office one or more of the said master and wardens and their said clerk shall give attendance daily, Sundays and the fourth day of July excepted; and that said board of wardens shall cause to be made and kept by their clerk, in a book or books by them to be provided for that purpose, regular and fair minutes and entries of all orders, regulations, transactions and proceedings of the said board under and by virtue of this act, and which said book or books of entries shall and may be inspected by any person or persons desiring to inspect the same, such person or persons desiring to inspect the same paying to the said clerk twelve and one half cents each time the said books shall at his or their request be opened and examined; and further, that the said clerk shall give true copies of any such entries or minutes so to be made in said book or books to such person or persons as may require the same, such person or persons paying therefore to the said clerk one cent for every twelve words or figures such copy shall contain.

The said board of wardens shall meet at their office in the city of New-York on Monday in every week, and at such other time or times as the master or any four of the wardens may direct and appoint; and that the said board of wardens, any five of whom shall be a quorum, shall have full power and authority when so met from time to time, to grant licenses under the limitations herein after in that behalf prescribed, to such and so many fit and proper persons, not exceeding thirty in the whole, as they shall deem necessary and sufficient to act as pilots for the safe pilotage of ships and vessels to and from the port of New-York by the way of Sandy Hook: and also to grant licenses to such and so many fit and proper persons as the said board of wardens may judge necessary and sufficient, to act as pilots for the safe pilotage of vessels to and from the port of New-York through the channel of the East River, commonly called Hell Gate: and also to grant licenses to such person or persons as the said board shall approve of, to act as deputy pilots under such said licensed pilots, not exceeding the whole number of pilots thus to be appointed; and further, that the said board of war-

dens shall have full power and authority at any time or times to revoke and annul any license that may be by them granted to any person to act as a pilot of any description, or as a deputy pilot, or to suspend any licensed pilot or deputy pilot, from acting as a pilot or a deputy pilot for any period of time they may think proper; and further, that the said board of wardens shall have full power and authority from time to time to make and establish such rules, orders and regulations, not inconsistent with the constitution or laws of this state or of the United States, for the better government of the said pilots and deputy pilots, and with such fines and penalties for the breach thereof as the said board of wardens shall deem proper, and the same from time to time to revoke or amend, and the said board of wardens may moreover, by their order, absolutely revoke the license of any pilot or deputy pilot, or suspend him from acting as a pilot or deputy pilot for such time as they may think proper, for breaking any such rule, order or regulation, or omitting any thing required by the same, or for acting in any manner contrary thereto; and in all cases whatever a majority of the said board of wardens shall be sufficient to decide upon any matter or question before the said board, and the decisions, acts, orders and proceedings of such majority shall in all cases be as valid, binding and effectual to all intents and purposes as if the said master and wardens had all of them been present and concurred therein: *Provided*, That before any pilot or deputy pilot shall be deprived of his license or suspended from acting thereunder, such pilot or deputy pilot shall be summoned by a notice in writing to be delivered to him personally or to be left at his usual place of abode at least fifteen days before the time specified therein for his appearance, to appear before the said board of wardens at such time as shall be specified in the said notice, to shew cause, if any he may have, against his suspension or the revocation of his license; and if such pilot or deputy pilot shall neglect or refuse to appear at the time specified in such notice, before the said board, or if the cause shewn by such pilot or deputy pilot against his suspension or the revocation of his license shall not appear sufficient and satisfactory to the said board, it shall and may be lawful for the said board either to revoke the license of such pilot or deputy pilot, or to suspend him from acting as a pilot or deputy pilot, as they may judge proper, and an entry shall be thereupon made in the minutes of the said board of wardens of such revocation or suspension, with the causes or reasons thereof; and any such pilot or deputy pilot who may think himself aggrieved by the proceedings of the said board under this section, or under any other section of this act, in depriving him of his license or suspending him from acting thereunder, may at any time within three days thereafter, appeal therefrom to the mayor or recorder of the city of New-York, or to the governor of the state, in case he shall then be in the city of New-York; and the said board shall, if notified of such appeal within the said three days hereby limited and allowed for the making thereof, forthwith certify and return their said act and decision in the premises, with the causes and reasons thereof, to the said mayor or recorder of the city, or governor of the state, as the case may be, who, after hearing the proofs and allegations of the appellant and of the said board, shall decide thereon, and confirm or reverse such act and decision of the said board of wardens as to him shall seem just and proper, and such decision shall be final and conclusive, and shall be reduced to writing and transmitted by the said mayor, recorder or governor to the said board of wardens, who shall conform themselves thereto: *Provided*, That the act of revocation or suspension appealed from shall continue in force, and the appellant be absolutely disqualified and disabled from acting thereunder until the same shall be reversed, and further, that it shall be the duty of the said mayor, recorder or governor to decide upon the said appeal, and to transmit his decision to the said board of wardens within twenty days after the making of the said appeal by the appellant, and in default thereof, the act and decision appealed from shall stand confirmed of course: *And provided also*, That the several persons who now are pilots and deputy pilots of the port of New-York, may respectively continue in such their respective employments without any such licenses as aforesaid for the space of thirty days from the passing of this act, and no longer.

It shall be the duty of the said board of wardens, before they grant a license to any person applying therefor to act as a pilot or as a deputy pilot for the port of New-York, to call such applicant before them, and in the presence of one or more of the licensed pilots of the port of New-York who shall be notified to attend for the purpose, and whose duty it shall be to attend accordingly, and to assist in such examination; or in case of the non-attendance of the pilot or pilots who shall be so notified to attend for that purpose, then without the assistance or presence of any licensed pilot, to examine such person so applying for a license to act as a pilot or deputy pilot, or to cause him to be examined touching his qualifications for such an employment, and in particular touching his knowledge of the tides, soundings, bearings and distances of the several shoals, rocks, bars and points of land in the navigation for which he applies for a license to act as a pilot or deputy pilot, and touching any other matter the said board of wardens may think proper. And if upon such examination the person so applying shall be found and appear to the board to be of sufficient ability, skill and experience to act as a pilot or as a deputy pilot, as the case may be, and not otherwise, the said board of wardens may grant him a license for piloting vessels by the way of Sandy Hook, or for piloting vessels through the channel of the East river, commonly called Hell Gate, or for acting as a deputy pilot under a licensed pilot, as such applicant shall desire and be found qualified for: *Provided* That every person applying for a license to act as a deputy pilot who shall have served five years as an apprentice to a licensed pilot, shall, if found qualified on such examination as aforesaid to act as a deputy pilot, and if in other respects be a fit and proper person for such an employment, he shall be entitled to such license in preference to any applicant or person who shall not have served such apprenticeship, and it shall be the duty of the said board to grant such license to such apprentice accordingly: *And provided also*, That every person applying for a license to act as a pilot for the safe piloting of ships and vessels to and from the port of New-York by the way of Sandy Hook

who shall have served two years as a deputy to a licensed pilot in that navigation, shall, if found qualified on such examination as aforesaid to act as a licensed pilot for that navigation, and if he is in other respects a fit and proper person for such an employment, he shall be entitled to such license in preference to any applicant or person who shall not have so served as such deputy pilot, and it shall be the duty of the said board to grant such license to such applicant so having served as such deputy accordingly.

All such licenses so to be granted by the said board of wardens to persons to act as pilot or as deputy pilots, shall be under the seal of the said board of wardens, and shall be signed by the master, or in case of his death, absence, or inability to act, by one of the wardens and shall be attested by the clerk of the said board, or the person acting as clerk for the time being, and which licenses shall be in force, unless revoked (and except during the suspension of the pilot or deputy pilot acting under the same when suspended) from the time of the granting thereof until the same shall be revoked by the wardens as aforesaid; and every person holding a commission as a branch pilot of the port of New-York, or following the occupation of a pilot of the said port of New York at the time of passing this act, shall, within thirty days thereafter, apply in person to the said board of wardens for the port of New-York for a license to entitle him to act as a pilot or as a deputy pilot, for or in the said port of New-York; and on such application, his commission as a branch pilot being delivered up to the said board of wardens, or his deputation as a deputy under a branch pilot being cancelled, he shall be entitled of course to receive a license to act as a pilot or deputy pilot of the port of New-York under and according to this act, and subject to the provisions thereof, in the capacity of a pilot for piloting vessels by the way of Sandy Hook, if he was commissioned as a branch pilot for piloting by the way of Sandy Hook, or in the capacity of a pilot for the safe pilotage of vessels to and from the port of New-York through the channel of the East River, commonly called Hell-Gate, if he shall have been commissioned as a pilot for that navigation, or as a deputy pilot, if he shall have been employed as a deputy; and if any person whomsoever, not being licensed as aforesaid, or who shall be suspended by the board of wardens, shall, under any pretence whatever, at any time after the expiration of thirty days from the passing of this act, pilot, or offer to pilot any ship or vessel, to or from the port of New-York by way of Sandy Hook, for hire or any compensation for such pilotage, when a licensed pilot or deputy pilot offers, he shall forfeit and pay to the said board of wardens the sum of fifty dollars for each and every vessel he shall so pilot or offer to pilot; or if any such person shall pilot or offer to pilot any ship or vessel, other than vessels employed in the coasting trade between the port of New-York and any other port of the United States, through the Sound or Hell Gate, or shall pilot or offer to pilot in like manner any coasting vessel exhibiting the usual signal for a pilot to come on board when a licensed pilot or deputy pilot offers, he shall forfeit and pay the sum of thirty dollars for each and every vessel he shall so pilot or offer to pilot.

Each licensed pilot may have one deputy under him, to be appointed and licensed by the said board of wardens, to act as a deputy pilot under such licensed pilot, and which said deputy pilot shall be subject to the same regulations and liable to the same fines, forfeitures and penalties as licensed pilots; and that every licensed pilot and deputy pilot of the port of New-York, before he enters upon his employment as a pilot, or as a deputy pilot under such license, shall enter into a recognizance to the people of this state before the mayor or recorder of the city of New-York, with two sufficient sureties, to be approved of by the said board of wardens, each in the penalty of two hundred and fifty dollars, with condition that he will diligently and faithfully execute the trust reposed in him, and the duties required of him as such pilot or deputy pilot, as the case may be, according to the directions of this act, and such rules, orders and regulations as may be given him in pursuance thereof; and every such recognizance if forfeited, may, at the instance of the said board of wardens, or on the request of any party aggrieved, be prosecuted under the directions of the said board of wardens, in any court having cognizance thereof, to judgment and execution as in other cases; and the amount of such recognizances, when received, shall by an order of the court in which the same shall be recovered, be so paid to the said board of wardens; and the said board shall in such case, and also at any time after suit brought on such recognizance, if required by any party interested therein, examine into and ascertain the damages sustained by the party so aggrieved, and shall apply the monies which may be so recovered by them, or as much thereof as shall be required for the purpose, in or towards the payment of the damages so ascertained, and shall make report in writing to the court in which such recovery shall be had, of the damages so ascertained, and of the payment so made for or on account thereof: *Provided always*, That if the licensed pilot or deputy pilot so offending shall, before judgment obtained on his recognizance as aforesaid, pay to the party aggrieved the damages to be ascertained by the board of wardens in manner aforesaid, together with the costs of suit, the suit on such recognizance shall be discontinued.

Each licensed pilot of the port of New-York shall be and continue owner or part owner of a good and sufficient pilot boat to be approved of by the board of wardens, and shall keep her exclusively employed as a pilot boat; and every licensed pilot not owning and employing a pilot boat as aforesaid, shall forfeit his licence.

It shall not be lawful for more than two boats' crews, not exceeding twenty persons in all, pilots and deputy pilots included, but exclusive of apprentices, to be in partnership, or have a joint or common interest or concern in their business as pilots, or in the pilotage, profits or emoluments thereof, without a special permit in writing for that purpose from the said board of wardens; and each and every pilot or deputy pilot offending against the provisions of this section shall forfeit and pay for each and every offence the sum of fifty dollars; and every continuance of such partnership, or other joint or common interest or concern, after suit brought against any such offender, notwithstanding that the

same may be varied or altered as to parties or terms, or otherwise, and whether the same shall be so varied or altered or not, shall be deemed a new offence in each and every person so continuing the same, who shall forfeit and pay the like sum of fifty dollars for each and every such continuance thereof, and so from time to time on each and every subsequent suit brought; or it shall be lawful for the board of wardens, in their discretion, to revoke the license of any pilot or deputy pilot who shall offend against the provision of this section, or to suspend him from acting as a pilot or deputy pilot for such time as the said board shall think proper.

Every pilot or deputy pilot who shall pilot any ship or vessel to the port of New-York, shall, within twenty-four hours next after the arrival of such ship or vessel at her place of mooring or anchorage, or of such pilot at the city of New-York, make report thereof, or cause report thereof to be made at the warden's office, specifying the name of the vessel and her master, and to the best of his information, the number of persons on board such vessel, and the port from whence she came, and to whom consigned, with such other and further particulars concerning such vessel and her voyage as the said board of wardens may, by their rules and orders from time to time require to be reported; and if any pilot or deputy pilot shall neglect or refuse so to do, or shall knowingly make a false report, he shall forfeit and pay for every such offence the sum of ten dollars.

If any pilot or deputy pilot shall misbehave when in the execution of his duty, it shall and may be lawful to and for the board of wardens, on complaint thereof made to them, to appoint a time and place of hearing, whereof fifteen days' notice shall be given to such pilot or deputy pilot, and on due proof being made to the said board of wardens, to their satisfaction, of misbehaviour of such pilot or deputy pilot, to fine such pilot or deputy pilot therefor in any sum not exceeding twenty-five dollars, or to suspend him for any term which the said board may think proper: *Provided always*, That nothing herein contained shall be so construed as to prevent the owner or consignee of such vessel, or any other person or persons, from recovering his or their damages, if any, by occasion of such misbehaviour of such pilot or deputy pilot, in any court having cognizance of the same.

If any pilot or deputy pilot shall negligently or carelessly lose any vessel under his care, and be thereof convicted by due course of law, he shall forever after such conviction be incapable of acting as a pilot or deputy pilot in this state; and if any pilot or deputy pilot shall run any vessel on shore, he shall not be entitled to any pilotage for such vessel.

In case of the suspension of any pilot or deputy pilot, such pilot or deputy pilot so suspended shall forthwith deliver up his license to the said board of wardens, to be by them kept until the time for which he shall be so suspended shall be expired, under the penalty of one hundred dollars for each and every refusal so to do.

The said master and wardens, or either of them, or any other person not being a licensed pilot or deputy pilot, shall not be concerned, directly or indirectly, in any pilot boat, or with any pilot in respect to the business of his trust.

The said board of wardens shall furnish every pilot and deputy pilot aforesaid with printed instructions, to be shewn by such pilot or deputy pilot to the master or commander of every vessel as soon as he shall go on board to take charge of such vessel to pilot her into the said port.

The master or one of the owners or consignees of every vessel employed in the coasting trade, and being of the burthen of fifty tons or upwards, which shall arrive at the port of New-York by the way of Sandy Hook, and every vessel, other than vessels employed in the coasting trade, arriving at the said port of New-York either by the way of Sandy Hook, or through the sound, shall report such vessel at the said office of the said board of wardens within forty-eight hours after the arrival of such vessel at the said port of New-York under the penalty of fifty dollars for each neglect or omission so to do, and shall pay to the said board of wardens for each respective vessel at the time of making such report (one fourth part thereof for the use of the pilot who shall have so piloted and made report of such vessel as herein before directed, and the residue thereof for the use of the said master and wardens) the sums following, that is to say: for each and every vessel of the said burthen of fifty tons or upwards employed in the coasting trade, arriving at the said port of New-York by the way of Sandy Hook, the sum of fifty cents; for each and every vessel belonging wholly to a citizen or citizens of the United States (other than vessels employed in the coasting trade) arriving by the way of Sandy Hook, or through the Sound, if of less than one hundred tons burthen, the sum of seventy-five cents; and if of one hundred but less than two hundred tons burthen, the sum of two dollars; if of the burthen of two hundred tons or more, but less than three hundred tons, the sum of three dollars; and if of the burthen of three hundred tons or upwards the sum of four dollars; and for every vessel being a foreign bottom and not owned by a citizen of the United States, arriving at the said port of New-York, either by the way of Sandy Hook or through the Sound, the sum of four dollars if of less than one hundred tons burthen, and the sum of six dollars if of one hundred tons burthen or more, but less than two hundred tons, and the sum of eight dollars if of the burthen of two hundred tons or more, but of less than three hundred tons burthen, and the sum of ten dollars if of the burthen of three hundred tons or upwards, which said respective sums shall be made payable for such vessel respectively so arriving at the said port of New York, shall and may be sued for and recovered, with costs of suit, in an action of debt or upon the case, by the said board of wardens, by their said name of "the master and wardens of the port of New York," or from the master or the owner or owners, or consignee or consignees of such vessel, or any or either of them in any court having cognizance thereof.

The master or owner of any ship or vessel appearing in distress, and in want of a pilot on the coast, shall pay unto such licensed pilot or deputy pilot who shall have exerted himself for the preservation of such ship or vessel, such sum for extra services as the said master or owner and pilot can agree upon; and in case no such agreement can be made, the board of wardens aforesaid shall

determine what is a reasonable reward, and the sum so determined by them shall be paid in manner aforesaid.

If the master of any ship or vessel coming to the port of New-York shall refuse to receive on board and employ a pilot, the master or owner of such vessel shall pay to such pilot who shall have offered to go on board and take charge of the pilotage of such vessel, half pilotage from the place at which such pilot shall have offered himself to the said port of New-York.

If any vessel going out of the port of New-York shall carry off to sea, through the default of the master or owner of such vessel, any pilot or deputy pilot when a boat is attending to receive such pilot or deputy pilot from on board such vessel, the master, owner or consignee of such vessel shall pay the board of wardens aforesaid, for the use of such pilot or deputy pilot, besides the pilotage of such vessel, at and after the rate of seventy-five dollars per month until such pilot or deputy pilot shall return to the port of New York aforesaid.

It shall be lawful for every licensed pilot or deputy pilot aforesaid to ask and receive pilotage from any person who shall employ him to pilot any ship from the eastward or southward of the outer middle ground to the port of New-York, and shall there safely moor such vessel or take her to a proper wharf, as the master of such vessel may desire; and likewise from any person who shall employ him to pilot any ship or other vessel from the port of New York to the southward or eastward of the said outer middle ground, so far that such vessel may safely proceed to sea, at and after the following rates to wit: for every ship or vessel drawing less than fourteen feet water, one dollar and twenty-five cents for every foot such vessel shall draw; and for every ship or vessel drawing fourteen feet and less than eighteen feet, one dollar and fifty cents for every foot; and for every ship or vessel drawing eighteen feet or upwards, two dollars for every foot such ship or vessel shall draw; and further if the master or owner of any ship or vessel having a pilot on board shall choose to have his vessel moored at any place within Sandy Hook, and not destined to New-York as aforesaid, such pilot or deputy pilot shall be allowed the same rate of pilotage as if the said ship or vessel was moored or conducted to a proper wharf as aforesaid, and shall be entitled to his discharge from such ship or vessel within twenty-four hours thereafter: *Provided*, That no more than half pilotage at the rate aforesaid shall be demanded or received by any such pilot who shall to the westward of the said outer middle ground take charge of any ship or other vessel coming into the port of New-York: *And provided also*, That no pilotage whatever shall be demanded or received by any such pilot for any such ship or vessel coming into the said port of New-York, unless such pilot shall take charge of such ship or vessel to the southward of the upper middle ground, and such vessel be at least of the burthen of seventy tons, unless such vessel shall make the usual signal for a pilot, in which case it shall be the duty of such pilot to take charge of such vessel, and such pilot shall then be entitled to half pilotage therefor as aforesaid.

Between the first day of December and the first day of April inclusive, in every year, such pilot may ask and receive the additional sum of four dollars for every ship or other vessel drawing ten feet or upwards, and for every ship or other vessel drawing less than ten feet water the additional sum of two dollars.

It shall be lawful for every licensed pilot or deputy pilot to ask and receive from any person who shall employ him to pilot any ship or other vessel, being a foreign bottom, and not owned by a citizen of the United States, for every such ship or vessel the addition of one fourth to the rates of pilotage allowed as aforesaid.

It shall be lawful for every licensed pilot or deputy pilot aforesaid to ask and receive from any person who shall employ him to pilot any ship or other vessel, and which said ship or other vessel shall be taken in charge by such licensed pilot or deputy pilot at such distance from land as that Sandy Hook could not be seen in the day time in fair weather, the addition of one fourth to the rates of pilotage he would otherwise be entitled to receive in such case by virtue of the provision of this act: *Provided nevertheless*, That the licensed pilots and deputies belonging to any boat which shall have piloted any ship or vessel into the port of New-York by the way of Sandy Hook shall be entitled to a preference in piloting the said ship or vessel out of the said port on the next outward voyage of the said ship or vessel, if the said voyage be by the way of Sandy Hook: *Provided also*, in case of non-attendance of some one of the said pilots or deputies at the time and place required by the master, owner or consignee of such ship or vessel, that then it shall be lawful for the said master, owner or consignee to employ such other licensed pilot or deputy as they may think proper, and the said pilots or deputies shall, by such non-attendance, be deemed to have relinquished the preference provided for them as aforesaid; but in all other cases where there is no preference given as aforesaid, it shall be the duty of the board of wardens to apportion the vessels outward bound by the way of Sandy Hook, as equally as may be amongst the pilots and deputies licensed for that purpose; and it shall also be the duty of the wardens to see that the pilots take their regular tour of duty at sea, (sickness or other unavoidable accidents excepted) under the penalty of the loss of their licenses.

For every day which any pilot aforesaid shall be requested to remain or be detained on board any ship or vessel by the master thereof, waiting for a fair wind or otherwise, he may demand and receive the sum of three dollars:

Every pilot licensed to pilot vessels through the channel of the East River, commonly called Hell Gate, may demand and receive from the master of any ship or vessel to whom he shall tender his services as a pilot, and by whom the same shall be refused, and for detention on board of any vessel waiting for a fair wind or otherwise, three fourths of the rates of compensation herein before allowed to the other licensed pilots of the port of New-York in these cases, and in all other cases

they may demand and receive such rates of pilotage as shall be established by the board of wardens aforesaid for such pilots: *Provided*, That nothing shall be deemed or received from the master or owner of any vessel employed in the coasting trade, and sailing under a coasting license through the East River or Sound, commonly called Hell Gate, unless such vessel shall make the signal for a pilot.

The master and owner of each pilot boat for piloting by way of Sandy Hook shall not have less than two apprentices attached to each boat, whose time of service shall be for not less than five years; and it shall be the duty of the said master or owner to attend to the instruction of said apprentices in the art and mystery of a pilot; and it shall be the duty of the said board of wardens, together with any two or more licensed pilots, whose attendance the said board of wardens shall require for that purpose, at least once during the last year such apprentices shall serve, to examine them touching their knowledge of the tides, bearings and distances of the several shoals, reefs, bars, points of land, and every other matter they or any three of them the said board of wardens may think proper, tending to promote the safe navigation of vessels between the city of New-York and Sandy Hook.

It shall be the duty of every licensed pilot or deputy pilot, upon taking charge of any vessel, either outward or inward bound, to cause the lead to be regularly hove.

The said master and wardens of the said port of New-York, or any two of them, shall be surveyors of all damaged goods brought into the said port of New-York, in any ship or vessel, and with the assistance of one or more skilful carpenters, shall be surveyors of any vessel deemed unfit to proceed to sea; and the said master and wardens, or any two of them, shall be judges of the repairs which may be necessary for the safety of such vessel on the intended voyage, and in all cases of vessels and goods arriving damaged, and by the owner or consignees required to be sold, such sales shall be made under the inspection of the master and wardens, or some one of them, which master and wardens shall when required by the owner or consignee aforesaid, certify the cause of such damage, the amount of sales of such vessel and goods, and the charges attending such sale, and shall be allowed for their services at and after the rate of two per cent. on the gross amount of sales thereof; and for each and every survey on board any ship or vessel, or at any store in the city of New-York, or along the docks and wharves thereof, on damaged goods they shall severally be allowed the sum of one dollar and fifty cents; for each and every certificate given in consequence of damaged goods, one dollar and twenty-five cents; and for every survey on board any ship or vessel put into the said port in distress, to ascertain the damages sustained, they shall severally be allowed the sum of two dollars and fifty cents, and for each and every certificate given of damages sustained by any ship or vessel put into the said port in distress, and recording the same, two dollars and fifty cents.

All the emoluments granted to the master and wardens by this act shall be equally divided among them, except that the master shall be entitled to two hundred and fifty dollars annually more than any of the said wardens.

All forfeitures, fines and penalties, which shall or may be recovered and received by the said board of wardens under and by virtue of this act, and not otherwise appropriated, shall be applied in the first instance for, in or towards the payment of such costs of suit and disbursements of the said board of wardens in their prosecutions and proceedings under this act against offenders, as shall not be received by them from the party or parties so prosecuted or proceeded against, and the overplus and residue thereof, if any overplus thereof shall be, shall be accounted for and paid over on the first Monday in June in each and every year, to the trustees of the "Sailor's Snug Harbour" in the city of New-York, for the use and benefit of that corporation.

All former acts and laws of this state concerning the master and wardens and pilots of the port of New-York, and every matter and thing relative thereto, be and the same are hereby repealed.

New-York, April, 1812.

An act passed April 10, 1813, to continue in force till the first day of April, one thousand eight hundred and eighteen, authorizes every branch pilot or deputy pilot of the port of New-York, to ask and receive from any person who shall employ him to pilot any ship or other vessel, being a foreign bottom, and not owned by a citizen of the United States, the sum of five dollars on every such ship or vessel, in addition to the rates of pilotage allowed by law, any thing in any former act to the contrary notwithstanding.

It also authorizes the master and wardens of the said port of New-York severally, for their services in the following cases the fees or sums following, that is to say; for each and every survey on merchandise on board of or imported in any ship or vessel, not owned in whole or in part by a citizen or citizens of the United States, the sum of three dollars; and for each and every certificate given in consequence of damaged goods, on board of, or imported in, such ship or vessel, the sum of two dollars and fifty cents; and for each and every survey on the hull or materials of any ship or vessel, the sum of five dollars; and for each and every certificate given of such survey, and recording the same, the sum of two dollars and fifty cents, any thing in any former or other act to the contrary notwithstanding.

Duty and Fees of Harbour Masters.

From and after the first day of May, 1815, there shall be demanded and received by the harbour masters of the port of New-York the following fees, that is to say; on all ships or vessels of the United States, which shall arrive at the port of New-York, from any port or place without this state

either than some port or place in an adjoining state, and which shall enter the said port of New-York and to load and unload, or make fast to any wharf therein, at and after the following rate, viz. on all such ships or vessels not exceeding the burthen of one hundred tons, the sum of one dollar and fifty cents; on all such ships or vessels above the burthen of one hundred and not exceeding two hundred tons the sum of three dollars; and on all such ships or vessels of greater burthen, in the same proportion; the burthen of such ships or vessels to be in all cases ascertained by the respective registers or enrollments; and also, on all foreign ships or vessels which shall arrive at and enter the said port, and load, unload, or make fast to any wharf therein, double the amount of the fees above specified, according to the rate of tonnage or burthen of said ships or vessels respectively, to be ascertained by their respective registers, or other documents on board the same.

The master, owner or consignee of any ship or vessel subject to the payment of fees to the harbour masters as aforesaid, shall within forty-eight hours after the arrival of such ship or vessel pay the fees so due thereon, at the office of the said harbour masters, or one of them, and in default of such payment, if the same shall have been first duly demanded, such master, owner or consignee, on whom such demand shall have been previously made, shall forfeit and pay double the amount of such fees, to be sued for and recovered in the names and for the use of the said harbour masters, in any court having cognizance thereof.

Whenever the said harbour masters shall be required to remove, or a second time to station any such ship or vessel at any wharf in the said port, or to interfere and adjust any difference or dispute respecting the birth, position or fastening of any such ship or vessel, it shall be lawful for the said harbour masters to demand and receive from the person or persons requiring their aid in the premises, and before they shall be bound to exercise their authority therein, the sum of one dollar and fifty cents, and the like compensation shall also be allowed and paid in like manner in every subsequent instance in which they shall be called on and required to act or interfere as aforesaid, in respect to any such ship or vessel.

Whenever the said harbour master shall be required to interfere and adjust any difference or dispute respecting the situation or position of any ship or vessel not subject to the payment of fees under the preceding sections of this act, it shall be lawful for the said harbour masters to demand and receive from the person or persons requiring their aid and interference in the premises and before they shall be bound to exercise their authority therein, the sum of one dollar and fifty cents, and the like compensation shall also be allowed and paid in like manner in every subsequent instance in which they shall be required to aid or interfere as aforesaid in respect to such ship or vessel.

Whenever it may become the duty of the said harbour masters, in conformity with the 277th section of the act hereby amended, to exercise their authority in causing to be removed any nuisance in or upon any docks or wharves in the city of New-York, and the person or persons whose duty it shall be to remove such nuisance, shall refuse or neglect to remove the same within forty-eight hours after notice from the said harbour masters, or one of them, requiring such person or persons to remove the same, the said harbour masters may thereupon demand and receive from such person or persons so neglecting or refusing the sum of two dollars and fifty cents, and in case of the non-payment thereof on demand, the same may be sued for and recovered in the name of and for the use of the said harbour masters in any court having cognizance thereof.

Laws of the United States respecting Foreign Agents.

THE president of the United States is authorized to appoint two or more agents, one to reside in Great Britain, and the others at such foreign ports as he shall direct. And the duty of such agents shall be to inquire into the situation of such American citizens, or others sailing conformably to the law of nations, under the protection of the American flag, as have been or may hereafter be impressed or detained by any foreign power; to endeavour by all legal means to obtain the release of such American citizens, or others, and to render an account of all impressments and detentions from American vessels to the Executive of the United States.

It is the duty of the master of every vessel of the United States, any of the crew whereof shall have been impressed or detained by any foreign power, at the first port at which such vessel shall arrive, if such impressment or detention happened on the high seas, or if the same happened within any foreign port, then in the port in which the same happened, immediately to make a protest, stating the manner of such impressment or detention; by whom made, together with the name and place of residence of the person impressed or detained; distinguishing also whether he was an American citizen; and if not, to what nation he belonged. And such master shall transmit, by post or otherwise, every such protest made in a foreign country, to the nearest consul or agent, or to the Minister of the United States resident in such country, if any such there be, preserving a duplicate of such protest, to be by him sent immediately after his arrival in the United States, to the Secretary of State, together with information to whom the original protest was transmitted. And in case such protest shall be made within the United States, or in any foreign country, in which no consul agent or minister of the United States resides, the same shall, as soon thereafter as practicable, be transmitted by such master, by post or otherwise, to the Secretary of State.

The master of every vessel of the United States arriving from a foreign port into any port of the United States, shall before such vessel be admitted to enter, render to the collector a true account of the number of seamen that have been employed on board her since she was last entered at any port in the United States, and shall pay to the said collector, twenty cents per month for every seaman so employed, which sum he is hereby authorized to retain out of the wages of such seamen.

Where a vessel belonging to citizens of the United States is sold in a foreign port, the master, unless the crew are liable by their contract, or consent to be discharged there, shall send them back to the state where they entered on board, or furnish them with the means of return, to be ascertained by the consul, or vice consul of the United States, having jurisdiction of the place.

Regulation of the Fisheries.

BY the treaty of peace with Great Britain, the people of the United States enjoy, unmolested, the right to take fish on the Grand Bank, and on all the other banks of Newfoundland; also, in the Gulf of St. Lawrence, and at all other places in the sea, where the inhabitants of both countries used at any time heretofore to fish; and the inhabitants of the United States have liberty to take fish of every kind on such part of the coast of Newfoundland as British fishermen shall use (but not to dry or cure the same on that island) and also on the coasts, bays and creeks of all other of his Britannic Majesty's dominions in America; and the American fishermen have liberty to dry and cure fish in any of the unsettled bays, harbours and creeks of Nova Scotia, Magdalen Islands, and Labrador, whilst unsettled; but as soon as settled, it shall not be lawful for American fishermen to dry or cure fish, at such settlement, without a previous agreement for that purpose with the inhabitants, proprietors or possessors of the ground.

Pursuant to this article of the treaty with Great Britain, it is necessary, in order to dry and cure their fish in the British settlements of Nova Scotia, the Magdalen Islands, and Labrador, that American fishermen enter into an agreement with the inhabitants of such settlements. Such agreements, for the security of the fishermen, should always be reduced to writing, and it is strongly recommended to those who are employed in that trade to secure this privilege, when they wish it, in such a manner as not afterwards to involve themselves in difficulties and embarrassments, which may deprive them of all the profits and emoluments of their voyage.

No ship or vessel of twenty tons or upwards, employed in those fisheries, shall be entitled to the allowance therein granted, unless the skipper or master thereof, shall, before he proceeds on any fishing voyage, make an agreement in writing or in print, with every fisherman employed therein, excepting only an apprentice or servant of himself or owner; and in addition to such terms of shipment as may be agreed on, shall, in such agreement, express whether the same is to continue for one voyage, or for the fishing season, and shall also express that the fish, or the proceeds of such fishing voyage or voyages, which may appertain to the fishermen, shall be divided among them in proportion to the quantities or number of said fish they may respectively have caught; which agreement shall be endorsed or countersigned by the owner of such fishing vessel or his agent; and if any fisherman having engaged himself for a voyage, or for the fishing season, in any fishing vessel, and signed an agreement therefor as aforesaid, shall thereafter and while such agreement remains in force and to be performed, desert or absent himself from such vessel, without leave of the master or skipper thereof, or of the owner or his agent, such deserter shall be liable to the same penalties as deserting seamen or mariners are subject to in the merchants' service, and may in the like manner, and upon the like complaint and proof, be apprehended and detained; and all costs of process and commitment, if paid by the master or owner, shall be deducted out of the share of fish, or proceeds of any fishing voyage to which such deserter had or shall become entitled. And any fisherman having engaged himself as aforesaid, who shall, during such fishing voyage, refuse or neglect his proper duty on board the fishing vessel, being thereto ordered or required by the master or skipper thereof, or shall otherwise resist his just commands, to the hindrance or detriment of such voyage, besides being answerable for all damages arising thereby, shall forfeit to the use of the owner of such vessel, his share of the allowance, which shall be paid upon such voyage as is herein granted.

Where an agreement or contract shall be so made and signed, for a fishing voyage or for the fishing season, and any fish which may have been caught on board such vessel during the same, shall be delivered to the owner or to his agent for cure, and shall be sold by said owner or agent, such vessel shall for the term of six months after such sale, be liable and answerable for the skipper's and every other fisherman's share of such fish, and may be proceeded against in the same form, and to the same effect as any other vessel is by law liable, and may be proceeded against for the wages of seamen or mariners in the merchants' service. And upon such process for the value of a share or shares of the proceeds of fish delivered and sold as aforesaid, it shall be incumbent on the owner or his agent to produce a just account of the sales and division of such fish according to such agreement or contract, otherwise the said vessel shall be answerable upon such process for what may be the highest value of the share or shares demanded. But in all cases, the owner of such vessel or his agent, appearing to answer to such process, may offer thereupon his account of general supplies made for such fishing voyage, and of other supplies therefor made, to either of the demandants, and shall be allowed to produce evidences thereof in answer to their demands respectively, and judgment shall be rendered upon such process, for the respective balances, which upon such an inquiry shall appear: *Provided always*, That when process shall be issued against any vessel as aforesaid, if the owner thereof or his agent will give bond to each fisherman, in whose favour such process shall be instituted, with sufficient security, to the satisfaction of two justices of the peace, one of whom shall be named by such owner or agent, and the other by the fisherman or fishermen pursuing such process; or if either party shall refuse, then the justice first appointed shall name his associate, with condition to answer and pay whatever sum shall be recovered by him or them on such process, there shall be an immediate discharge of such vessel: *Provided*, That nothing herein

contained shall prevent any fisherman from having his action at common law, for his share of shares of fish, or the proceeds thereof as aforesaid.

No ship or vessel shall be entitled to be registered as a ship or vessel of the United States, or if registered, to the benefits thereof, if owned in whole or in part by any person naturalized in the United States, and residing for more than one year in the country from which he originated, or for more than two years in any foreign country, unless such person be in the capacity of a consul or other public agent of the United States: *Provided*, That nothing herein contained shall be construed to prevent the registering anew of any ship or vessel before registered, in case of a *bona fide* sale thereof to any citizen or citizens resident in the United States: *And provided also*, That satisfactory proof of the citizenship of the person on whose account a vessel may be purchased, shall be first exhibited to the collector, before a new register shall be granted for such vessel.

That the proviso in the act, entitled, "An act in addition to an act, entitled, an act concerning the registering and recording of ships and vessels," passed the twenty seventh of June, one thousand seven hundred and ninety seven, shall be taken and deemed to extend to the executors or administrators of the owner or owners of vessels in the said proviso described.

* Abstracts of the Laws of the United States concerning Vessels to be employed in the Coasting Trade and Fisheries.

All vessels enrolled by virtue of "An act for registering and clearing vessels, regulating the coasting trade, and for other purposes," and those of twenty tons and upwards, which shall be enrolled after the last day of May, 1793, in pursuance of this act, and having a license in force, or if less than twenty tons, not being enrolled, shall have a license in force as is herein after required, shall be deemed vessels of the United States entitled to the privileges of vessels employed in the fisheries.

From and after the last day of May, 1793, in order for the enrollment of any vessel, she shall possess the same qualifications, and the same requisites shall in all respects be complied with, as are made necessary for registering vessels, by the act entitled, "An act concerning the registering and recording vessels," and the same duties and authorities are hereby given and imposed on all officers respectively, in relation to such enrollments, and the same proceedings shall be had in similar cases, touching such enrollments, and the vessels so enrolled, with the master or owners shall be subject to the same requisites as in those cases provided for vessels registered by virtue of the aforesaid act; a record of which enrollment shall be made, and an abstract or copy thereof granted.

In order to the licensing any ship or vessel for carrying on the coasting trade or fisheries, the husband or managing owner, together with the master thereof, with one or more sureties to the satisfaction of the collector granting the same, shall become bound to pay the United States, if such ship or vessel be of the burthen of five tons, and less than twenty tons, the sum of one hundred dollars, and if twenty tons and not exceeding thirty tons, the sum of two hundred dollars, and if above thirty tons and not exceeding sixty tons, the sum of five hundred dollars, and if above sixty tons, the sum of one thousand dollars, in case it shall appear, within two years from the date of the bond, that such ship or vessel has been employed in any trade whereby the revenue of the United States has been defrauded during the time the license granted to such ship or vessel remained in force; and the master of such ship or vessel shall also swear or affirm, that he is a citizen of the United States, and that such license shall not be used for any other vessel, or any other employment, than that for which it is especially granted, or in any trade or business, whereby the revenue of the United States may be defrauded; and if such ship or vessel be less than twenty tons burthen the husband or managing owner shall swear, or affirm, that she is wholly the property of a citizen or citizens of the United States.

No license granted to any ship or vessel shall be considered in force any longer than such ship or vessel is owned, and of the description set forth in such license, or for carrying on any other business or employment than that for which she is specially licensed; and if any ship or vessel be found with a forged or altered license, or making use of a license granted for any other ship or vessel, such ship or vessel, with her tackle, apparel, and the cargo found on board her, shall be forfeited.

Every ship or vessel of twenty tons or upwards (other than such as are registered) found trading between district and district, or between different places in the same district, or carrying on the fishery, without being enrolled or licensed, or if less than twenty tons and not less than 5 tons, without a license in manner as provided by this act, such ship or vessel, if laden with goods the growth or manufacture of the United States, or in ballast, shall pay the same fees in every port of the United States at which she may arrive, as ships or vessels not belonging to citizens of the United States, and if she have on board any articles of foreign growth or manufacture, or distilled spirits, other than sea stores, the ship or vessel, together with her tackle, apparel and furniture, and the lading found on board shall be forfeited: *Provided* however, if such ship or vessel be at sea, at the expiration of the time for which the license was given, and the master of such ship or vessel shall swear or affirm that such was the case, and shall also within forty-eight hours after his arrival deliver to the collector of the district in which he shall first arrive the license which shall have expired, the forfeiture aforesaid shall not be incurred, nor shall the ship or vessel be liable to pay the fees and tonnage aforesaid.

If any ship or vessel, enrolled or licensed as aforesaid, shall proceed on a foreign voyage, without first giving up her enrollment and license to the collector of the district comprehending her port from which she is about to proceed on such foreign voyage, and being duly registered by such collector, every such ship or vessel, together with her tackle, apparel and furniture, and the goods wares and

merchandise, so imported therein, shall be liable to seizure and forfeiture; **Provided** always, if the port from which such ship or vessel is about to proceed on such foreign voyage, be not within the district where such ship or vessel is enrolled, the collector of such district shall give to the master of such ship or vessel a certificate specifying that the enrolment and license of such ship or vessel is received by him, and the time when it was so received; which certificate shall afterwards be delivered by the said master to the collector, who may have granted such enrolment and license.

The license granted to any ship or vessel shall be given up to the collector of the district, who may have granted the same, within three days after the expiration of the time for which it was granted in case such ship or vessel be then within the district, or if she be absent, at that time within three days from her first arrival within the district afterwards, or if she be sold out of the district, within three days after the arrival of the master within any district, to the collector of such district, taking his certificate therefor; and if the master thereof shall neglect or refuse to deliver up the license, as aforesaid, he shall forfeit fifty dollars; but if such license shall have been previously given up to the collector of any other district, as authorized by this act, and a certificate thereof under the hand of such collector, be produced by such master, or if such license be lost or destroyed, or unintentionally mislaid, so that it cannot be found, and the master of such ship or vessel shall make and subscribe an oath or affirmation, that such license is lost, destroyed or unintentionally mislaid, as he verily believes, and that the same, if found, shall be delivered up, as is herein required, then the aforesaid penalty shall not be incurred. And if such license shall be lost, destroyed or unintentionally mislaid, as aforesaid, before the expiration of the time for which it was granted, upon the like oath or affirmation being made and subscribed by the master of such ship or vessel, the said collector is hereby authorized and required, upon application being made therefor, to license such ship or vessel anew.

It shall and may be lawful for the owner or owners of any licensed ship or vessel to return such license to the collector who granted the same, at any time within the year for which it was granted, who shall thereupon cancel the same, and shall license such vessel anew, upon the application of the owner or owners, and upon the conditions herein before required, being complied with; and in case the term for which the former license was granted shall not be expired, an abatement of the tonnage of six cents per ton shall be made, in the proportion of the time so unexpired.

Every licensed ship or vessel shall have her name and the port to which she belongs painted on her stern in the manner as is provided for registering ships or vessels; and if any licensed ship or vessel be found without such painting, the owner or owners thereof shall pay twenty dollars.

When the master of any licensed ship or vessel, ferry boats excepted, shall be changed, the new master, or in case of his absence the owner or one of the owners thereof, shall report such change to the collector residing at the port where the same may happen, if there be one, otherwise to the collector residing at any port, where such ship or vessel may next arrive, who, upon the oath or affirmation of such new master, or in case of his absence, of the owner or one of the owners, that he is a citizen of the United States, and that such ship or vessel shall not, while such license continues in force, be employed in any manner whereby the revenue of the United States may be defrauded, shall endorse such change on the license, with the name of the new master; and when any change shall happen as aforesaid, and such change shall not be reported, and the endorsement made of such change, as is herein required, such ship or vessel found carrying on the coasting trade or fisheries, shall be subject to pay the same fees and tonnage as a vessel of the United States having a register, and the said new master shall forfeit and pay the sum of ten dollars.

Any officer concerned in the collection of the revenue may at all times inspect the enrolment or license of any vessel; and if the master of any such vessel shall not exhibit the same when required by such officer, he shall forfeit and pay one hundred dollars.

When any vessel licensed to carry on the fishery shall be intended to touch at any foreign place, it shall be the duty of the master or owner to obtain permission for that purpose from the collector of the district where she may be previous to her departure; and the master of such vessel shall deliver like manifests and make like entries both of vessels and of goods on board, within the time and under the penalties by the laws of the U. States providing for vessels arriving from a foreign port. And if any vessels licensed for carrying on the fisheries, be found within three leagues of the coast, with goods of foreign growth or manufacture above the value of 500 dollars without such permission, such vessel, together with such foreign articles, shall be subject to seizure and forfeiture.

The master or commander of every ship or vessel licensed for carrying on the coasting trade, destined from a district in one state to a district in the same, or an adjoining state on the sea coast, or on a navigable river, having on board either distilled spirits in casks exceeding five hundred gallons, wine in casks exceeding two hundred and fifty gallons, or in bottles exceeding one hundred dozens, sugar in casks or boxes, exceeding three thousand pounds, tea in chests or boxes exceeding five hundred pounds, coffee in casks or bags exceeding one thousand pounds, or foreign merchandise in packages, as imported, exceeding in value four hundred dollars, or goods, wares or merchandise consisting of such enumerated or other articles of foreign growth or manufacture, or of both, whose aggregate value exceeds eight hundred dollars, shall previous to the departure of such ship or vessel from the port where she may then be, make out and subscribe duplicate manifests of the whole of such cargo on board such ship or vessel, specifying in such manifest the marks and numbers of every cask, bag, box, chest or package, containing the same, with the name and place of residence of every shipper or consignee, and the quantity shipped by and to each; and if there be a collector or surveyor, residing at such port, or within five miles thereof, he shall deliver such manifest to the collector, if there be one, otherwise to the surveyor, before whom he shall swear or affirm, to the best of his knowledge and belief, that the goods therein contained were legally imported and the duties thereupon paid or secured, whereupon the said collector or surveyor shall certify

the same on said manifests, one of which he shall return to the said master with a permit specifying thereon, generally, the lading on board such ship or vessel, and authorizing him to proceed to the port of his destination. And if any ship or vessel, being laden or destined as aforesaid, shall depart from the port where she may then be, without the master or commander having first made out and subscribed duplicate manifests of the lading on board such ship or vessel, and in case there be a collector or surveyor residing at such port or within five miles thereof, without having previously delivered the same to the said collector or surveyor, and obtaining a permit in manner as is herein required, such master or commander shall pay one hundred dollars.

The master or commander of every ship or vessel licensed for carrying on the coasting trade, having on board either distilled spirits in casks exceeding five hundred gallons, wine in casks exceeding two hundred and fifty gallons, or in bottles exceeding one hundred dozens, sugar in casks or boxes exceeding three thousand pounds, tea in chests or boxes exceeding five hundred pounds, coffee in casks or bags exceeding one thousand pounds, or foreign merchandize in packages as imported, exceeding in value four hundred dollars, or goods, wares or merchandize consisting of such enumerated, or other articles of foreign growth or manufacture, or of both, whose aggregate value exceeds eight hundred dollars, and arriving from a district in one state at a district in the same or an adjoining state on the sea coast, or on a navigable river, shall previous to the unloading of any part of the cargo of such ship or vessel, deliver to the collector if there be one, or if not, to the surveyor residing at the port of her arrival, or if there be no collector or surveyor residing at such port, then to a collector or surveyor, if there be any such officer residing within five miles thereof, the manifest of the cargo, certified by the collector or surveyor of the district from whence she sailed (if there be such manifest) otherwise the duplicate manifests thereof, as is herein before directed, to the truth of which, before such officer he shall swear or affirm. And if there have been taken on board such ship or vessel, any other or more goods than are contained in such manifest or manifests, since her departure from the port from whence she first sailed, or if any goods have been since landed, the said master or commander shall make known and particularize the same to the said collector or surveyor, or if no such goods have been so taken on board or landed, he shall so declare, to the truth of which he shall swear or affirm: Whereupon, the said collector or surveyor, shall grant a permit for unloading a part or the whole of such cargo, as the said master or commander may request. And if there be no collector or surveyor residing at or within five miles of the said port of her arrival, the master or commander of such ship or vessel may proceed to discharge the lading from on board such ship or vessel, but shall deliver to the collector or surveyor residing at the first port where he may next afterwards arrive, and within twenty hours of his arrival, the manifest or manifests aforesaid, noting thereon the times when and the places where the goods therein mentioned have been unloaded, to the truth of which, before the said last mentioned collector or surveyor, he shall swear or affirm; and if the master or commander of any such ship or vessel, being laden as aforesaid shall neglect or refuse to deliver the manifest or manifests of the times, and in the manner herein directed, he shall pay one hundred dollars.

The master or commander of every ship or vessel licensed for carrying on the coasting trade, and being destined from any district of the United States, to a district other than a district in the same or an adjoining state on the sea coast, or on a navigable river, shall previous to her departure, deliver to the collector residing at the port where such ship or vessel may be, if there is one, otherwise to the collector of the district comprehending such port, or to a surveyor within the district, as the one or the other may reside nearest to the port at which such ship or vessel may be, duplicate manifests of the whole cargo on board such ship or vessel, or if there be no cargo on board, he shall so certify, and if there be any distilled spirits, or goods, wares and merchandize, of foreign growth or manufacture on board, other than what may, by the collector, be deemed sufficient for sea stores, he shall specify in such manifests the marks and number of every cask, bag, box, chest or package containing the same, with the name and place of residence of every shipper and consignee of such distilled spirits, or goods of foreign growth or manufacture, and the quantity shipped by, and to each, to be by him subscribed, and to the truth of which he shall swear or affirm; and shall also swear or affirm before the said collector or surveyor, that such goods, wares or merchandize, of foreign growth or manufacture, were to the best of his knowledge and belief, legally imported and the duties thereupon paid or secured, upon the performance of which, and not before, the said collector or surveyor shall certify the same on the said manifests one of which he shall return to the master with a permit thereunto annexed, authorizing him to proceed to the port of his destination. And if any such ship or vessel shall depart from the port where she may then be, having distilled spirits, or goods, wares or merchandize of foreign growth or manufacture on board, without the several things herein required being complied with, the master thereof shall forfeit one hundred dollars; or if the lading be of goods the growth and manufacture of the United States only, or if such ship or vessel have no cargo, and she depart without the several things herein required being complied with, the said master shall forfeit and pay fifty dollars.

The master or commander of every ship or vessel licensed to carry on the coasting trade, arriving at any district of the United States, from any district other than a district in the same, or an adjoining state on the sea coast, or on a navigable river, shall deliver to the collector residing at the port where she may arrive, if there be one, otherwise to the collector or surveyor of the district comprehending such port, as the one or the other may reside nearest thereto, if the collector or surveyor reside at a distance not exceeding five miles, within twenty-four hours, or if at a greater distance, within forty-eight hours next after his arrival, and previous to the unloading any of the goods brought in such ship or vessel, the manifest of the cargo (if there be any certified by the collector or surveyor of the district from which she last sailed) and shall make oath or affirmation before the said

collector or surveyor, that there was not, when he sailed from the district where his manifest was certified, or has been since, or then is, any more or other goods, wares or merchandize of foreign growth or manufacture, or distilled spirits (if there be any other than sea stores on board such vessel) than is therein mentioned; and if there be no such goods he shall so swear or affirm: and if there be no cargo on board he shall produce the certificate of the collector or surveyor of the district from whence she last sailed, as aforesaid, that such is the case: Whereupon such collector or surveyor shall grant a permit for unlading the whole or part of such cargo (if there be any) within this district, as the master may request; and where a part only of the goods, wares and merchandize of foreign growth or manufacture, or of distilled spirits, brought in such ship or vessel is intended to be landed, the said collector or surveyor shall make an endorsement of such part on the back of the manifest, specifying the articles to be landed; and shall return such manifest to the master, endorsing also thereon, his permission for such ship or vessel, to proceed to the place of her destination, and if the master of such ship or vessel shall neglect or refuse to deliver the manifest (or if she has no cargo, the certificate) within the time herein directed, he shall forfeit one hundred dollars, and the goods, wares and merchandize of foreign growth or manufacture, or distilled spirits, found on board or landed from such ship or vessel, not being certified, as is herein required, shall be forfeited, and if the same shall amount to the value of eight hundred dollars, such ship or vessel, with her tackle, apparel and furniture, shall be also forfeited.

Nothing in this act contained shall be so construed as to oblige the master or commander of any ship or vessel licensed for carrying on the coasting trade, bound from a district in one state, to a district in the same, or an adjoining state on the sea coast, or on a navigable river, having on board goods, wares or merchandize, of the growth, produce or manufactures of the United States only (except distilled spirits,) or distilled spirits, not more than five hundred gallons, wine in casks, not more than two hundred and fifty gallons, or in bottles not more than one hundred dozens, sugar in casks or boxes not more than three thousand pounds, tea in chests or boxes not more than five hundred pounds, coffee in casks or bags not more than one thousand pounds, or foreign merchandize, in packages, as imported, of not more value than four hundred dollars, or goods, wares or merchandize, consisting of such enumerated or other articles of foreign growth or manufacture, or of both, whose aggregate value shall not be more than eight hundred dollars, to deliver a manifest thereof, or obtain a permit previous to her departure, or on her arrival within such district, to make any report thereof: but such master shall be provided with a manifest by him subscribed, of the lading of what kind soever, which was on board such ship or vessel, at the time of his departure from the district from which she last sailed, and if the same, or any part of such lading, consists of distilled spirits, or goods, wares or merchandize, of foreign growth or manufacture, with the marks and numbers of each cask, bag, box, chest or package, containing the same, with the name of the shipper and consignee of each; which manifest shall be by him exhibited, for the inspection of any officer of the revenue, when by such officer thereunto required, and shall also inform such officer from whence such ship or vessel last sailed, and how long she has been in port, when by him so interrogated. And if the master of such ship or vessel shall not be provided, on his arrival within any such district, with a manifest, and exhibit the same, as is herein required, if the lading of such ship or vessel consist wholly of goods, the produce or manufacture of the United States (distilled spirits excepted) he shall forfeit twenty dollars; or if there be distilled spirits, or goods, wares or merchandize, of foreign growth or manufacture, on board, excepting what may be sufficient for sea stores, he shall forfeit forty dollars; or if he shall refuse to answer the interrogatories truly, as is herein required, he shall forfeit the sum of one hundred dollars. And if any of the goods laden on board such ship or vessel shall be of foreign growth or manufacture, so much of the same as may be found on board such ship or vessel, and which shall not be included in the manifest exhibited by such master, shall be forfeited.

When any ship or vessel of the United States, registered according to law, shall be employed in going from any one district in the United States, to any other district, such ship or vessel, and the master or commander thereof, with the goods she may have on board, previous to her departure from the district where she may be, and also, upon her arrival in any other district, shall be subject (except as to the payment of fees) to the same regulation, provisions, penalties and forfeitures, and the like duties are imposed on like officers, as is provided above for ships or vessels carrying on the coasting trade; *Provided however*, That nothing herein contained, shall be construed to extend to registered ships or vessels of the United States, having on board goods, wares and merchandize of foreign growth or manufacture, brought into the United States in such ship or vessel from a foreign port, and on which the duties have not been paid or secured according to law.

The master or commander of every ship or vessel, employed in the transportation of goods from district to district, that shall put into a port other than the one to which she was bound, shall within twenty-four hours of his arrival, if there be an officer residing at such port, and she continues there so long, make report of his arrival, to such officer, with the name of the place he came from, and to which he is bound, with an account of his lading; and if the master of such ship or vessel shall neglect or refuse to do the same, he shall forfeit twenty dollars.

If the master or commander of any ship or vessel, employed in the transportation of goods from district to district, having on board goods, wares or merchandize of foreign growth or manufacture, or distilled spirits, shall, on his arrival at the port to which he was destined, have lost or mislaid the certified manifest of the same, or the permit which was given therefor, by the collector or surveyor of the district from whence he sailed, the collector of the district where he shall so arrive, shall take bond for the payment of the duties on such goods, wares or merchandize of foreign growth or manufacture, or distilled spirits, within six months, in the same manner as though they were imported

from a foreign country; *Provided however*, such bond shall be cancelled, if the said master shall deliver, or cause to be delivered to the collector taking such bond, and within the term therein limited for payment, a certificate from the collector or surveyor of the district from whence he sailed, that such goods were legally exported in such ship or vessel, from such district.

In all cases, where such ship or vessel, or any other licensed ship or vessel, shall have been once admeasured, it shall not be necessary to measure such ship or vessel anew, for the purpose of obtaining another enrollment or license, except such ship or vessel shall have undergone some alteration as to her burthen, subsequent to the time of her former license.

It shall be lawful for any officer of the revenue to go on board of any ship or vessel, whether she shall be within or without his district, and the same to inspect, search and examine, and if it shall appear that any breach of the laws of the United States has been committed, whereby such ship or vessel, or the goods, wares and merchandize on board, or any part thereof, is or are liable to forfeiture, to make seizure of the same.

In every case where a forfeiture of any ship or vessel, or of any goods, wares and merchandize, shall accrue, it shall be the duty of the collector, or other proper officer, who shall give notice of the seizure of such ship or vessel, or of such goods, wares or merchandize, to insert in the same advertisement, the name or names, and the place or places of residence, of the person or persons to whom any such ship or vessel, goods, wares and merchandize belonged, or were consigned at the time of such seizure, if the same shall be known to him.

If any person or persons shall swear or affirm to any of the matters herein required to be verified, knowing the same to be false, such person or persons shall suffer the like pains and penalties as shall be incurred by persons committing wilful and corrupt perjury. And if any person or persons shall forge, counterfeit, erase, alter, or falsify any enrollment, license, certificate, permit or other document, mentioned or required in this act, to be granted by any officer of the revenue, such person or persons so offending, shall forfeit five hundred dollars.

If any person or persons shall assault, resist, obstruct or hinder any officer in the execution of any act or law of the United States, herein mentioned, or of any of the powers or authorities vested in him by any act or law, as aforesaid, all and every person and persons so offending, shall, for every such offence, for which no other penalty is particularly provided, forfeit five hundred dollars.

If any licensed ship or vessel shall be transferred in whole or in part to any person, who is not at the time of such transfer, a citizen of, and resident within the United States, or if any such ship or vessel shall be employed in any other trade than that for which she is licensed, or shall be found with a forged or altered license, or one granted for any other ship or vessel, every such ship or vessel, with her tackle, apparel and furniture, and the cargo found on board her, shall be forfeited.

Provided nevertheless, That in all cases where the whole or any part of the lading or cargo on board any ship or vessel shall belong bona fide to any person or persons other than the master, owner or mariners, of such ship or vessel, and upon which the duties shall have been previously paid or secured, according to law, shall be exempted from any forfeiture under this act, any thing herein contained to the contrary notwithstanding.

On all pickled fish exported, there shall be a bounty of twenty cents per barrel, provided the exporter shall make entry with the collector and naval officer of the district from whence the same are to be exported, and shall specify in such entry the names of the master and vessel, and the place where such fish are to be exported, together with the particular quantity, and other matters satisfactory to the collector, each cask having the words "*For bounty*" branded. The fish so exported must be cured with foreign salt, on which duty has been paid.

Allowance to owners of vessels employed in the fishing as follows:—*Provided* they have been actually at sea four months in the year, viz. if of 20 tons and not exceeding 30 tons, two dollars and forty cents, and if above 30 tons, four dollars, of which three-eighth parts shall belong to the owner of such fishing vessel, and the other five-eighths shall be directed by him his agent, or lawful representative who shall have been employed in such vessel, during the season, provided the allowance on any one vessel for the season shall not exceed two hundred and seventy-two dollars.

The owner of each fishing boat employed as aforesaid, shall be entitled to receive one dollar and sixty cents per ton if more than five and not less than twenty tons. Bonds must be given and cancelled in the same manner as required on the exportation of goods, wares and merchandize, entitled to drawback of duties, and the bounty shall not be paid until at least six months after the exportation of such fish. Each boat entitled to bounty by this act must land, in the course of the season, not less than twelve quintals for each ton of her admeasurement. Owners of vessels must exhibit original agreements, which he must swear to before the collector. No vessel entitled to the allowance unless the skipper or master, before he proceeds the voyage, make an agreement with the fishermen employed, except apprentices and servants, and shall also mention the day on which he sailed and returned. The men employed in vessels engaged in the fishery, subject to the same regulation as those in the merchant service, and the vessel answerable for their proportion of fish taken.

Relief of Sick and Disabled Seamen.

THE laws of the United States have not been remiss in providing for the relief of that portion of citizens, whose profession is so useful to a commercial nation, and so incident to the calamities of climate and weather. The mariners of this country are largely indebted to the humane and benevolent spirit of its jurisprudence, for interposing in their behalf the authority of the nation, and

reserving, though from the produce of their own labours, a fund which will afford them support and comfort in sickness or distress.

Many hospitals and lazarettos are founded in different parts of the United States, for the support and relief of poor, sick and disabled seamen; and by the United States' laws, as well as those of several different States, taxes are collected of masters and mariners for this valuable purpose. We here subjoin an abstract of those laws, for the instruction of masters of vessels on entering the different ports.

From and after the first day of September, 1798, no collector shall grant to any ship or vessel, whose enrollment or license for carrying on the coasting trade has expired, a new enrollment or license before the master of such ship or vessel shall first render a true account to the collector, of the number of seamen, and the time they have severally been employed on board such ship or vessel, during the continuance of the license which has so expired, and pay to such collector twenty cents per month, for every month such seaman have been severally employed as aforesaid; which sum the said master is hereby authorized to retain out of the wages of such seaman. And if any such master shall render a false account of the number of men, and the length of time they have severally been employed, as is herein required, he shall forfeit and pay one hundred dollars.

It shall be the duty of the several collectors to make a quarterly return of the sums collected by them respectively, by virtue of this act, to the Secretary of the Treasury; and the President of the United States is hereby authorized, out of the same, to provide for the temporary relief and maintenance of sick or disabled seamen, in the hospitals or other proper institutions now established in the several ports of the United States, or in ports where no such institutions exist, then in such other manner as he shall direct; and the President is hereby authorized to purchase or receive cessions or donations of ground or buildings, in the name of the United States, and to cause buildings when necessary, to be erected as hospitals, for the accommodation of sick and disabled seamen.

In cases where distressed mariners and seamen of the United States have been transported from foreign ports where there was no consul, vice consul, commercial agent, or vice-commercial agent of the United States. And in all cases where they shall be so transported, these shall be allowed to the master or owner of such vessel, in which they shall or may be transported, such reasonable compensation, in addition to the allowance now fixed by law, or shall be deemed equitable by the Comptroller of the Treasury.

The benefit of the act for the relief of sick and disabled seamen, also extends to all at, or near the port of New Orleans, within the territory of Louisiana, and to all persons navigating boats down the Mississippi, to New Orleans, and on the application of the master of foreign vessels, foreign seamen may be admitted, subject to a charge of seventy-five cents per day, for each day he may remain in the hospital.

And by another act in addition to the above, it is provided—That the President of the United States shall be, and he hereby is authorized to direct the expenditure of any monies which have been, or shall be collected by virtue of an act, entitled "An act for the relief of sick and disabled seamen," to be made within the State wherein the same shall have been collected, or within the State next adjoining thereunto, excepting what may be collected in the States of New Hampshire, Massachusetts, Rhode Island and Connecticut; any thing in the said act contained to the contrary thereof notwithstanding.

That the Secretary of the navy shall be and he hereby is authorized and directed to deduct after the first day of September, 1799, from the pay thereafter to become due, of the officers, seamen and marines of the Navy of the United States, at the rate of twenty cents per month, for every such officer, seaman or marine, and to pay the same *quarter annually* to the secretary of the treasury, to be applied to the same purposes as the money collected by virtue of the above mentioned act is appropriated.

That the officers, seamen and marines of the navy of the United States shall be entitled to receive the same benefits and advantages as by the act above mentioned are provided for the relief of sick and disabled seamen of the merchant vessels of the United States.

BY a law of the United States, passed February, 1804, *it is enacted*, That the same duties which by law now are, or hereafter may be laid on goods, wares, and merchandize imported into the United States, on the tonnage of vessels, and on the passports and clearances of vessels, shall be laid and collected on goods, wares and merchandize imported into the territories of Louisiana, and on vessels arriving in or departing from the said territories; and the following acts, that is to say, the act entitled,

"An act concerning the registering and recording of ships and vessels."

"An act for enrolling and licensing ships or vessels to be employed in the coasting trade and fisheries."

"An act to regulate the collection of duties on imports and tonnage."

"An act to establish the compensations of officers employed in the collection of the duties on imports and tonnage, and for other purposes."

And the act supplementary to, and amendatory of the two last mentioned acts, or so much of the said acts as is now in force, and also so much of any other act or acts of the United States as is now in force or may be hereafter enacted for laying any duties on imports, tonnage, seamen or shipping for regulating and securing the collection of the same and for regulating the compensation of the officers employed in the collection of the same; for granting and regulating drawbacks; bounties and allowances in lieu of drawbacks; concerning the registering, recording, enrolling and licensing of ships and vessels: *Provided however*, That ships or vessels, which on the twentieth day of Decem-

ber, 1803, were owned by persons then residing in the above mentioned territories, and who either were citizens of the United States, or had resided in the said territories, during five years next preceding, shall be entitled to, the benefits and privileges of ships or vessels of the United States, whilst they shall continue to be wholly owned by such persons, or by citizens of the United States. *Provided nevertheless*, That the persons claiming such privileges for their ships or vessels shall in every other respect comply with the provisions of the acts for registering, recording, enrolling and licensing of ships or vessels, and who, if not citizens of the United States, shall have previously taken an oath of allegiance to the United States, which the collector of the port is hereby authorized to administer.

That so much of any act or acts of the United States for the protection of American seamen; for the government and regulation of seamen in the merchant's service; and for preventing the exportation of goods not duly inspected; shall extend to and have full force and effect in the above mentioned territories.

That so much of any law or laws, laying any duties on the importation into the United States of goods, wares, or merchandize from the said territories (or allowing drawbacks on the importation of the same from the United States to the said territories) or respecting the commercial intercourse between the United States and the said territories, or between the several parts of the United States through the said territories, which is inconsistent with the provisions of the preceding section, be, and the same hereby is repealed; and all duties on the exportation of goods, wares, and merchandize from the said territories, as well as all duties on the exportation of goods, wares and merchandize into the said territories, on the transfer of ships or vessels, and on the tonnage of vessels, other than those laid by virtue of the laws of the United States, shall, from the time when this act shall commence to be in force, cease and determine: *Provided however*, That nothing herein contained shall be construed to effect the fees and other charges usually paid, in the said territories, on account of pilotage, wharfage, or the right of anchoring by the levy of the city of New-Orleans, which several fees and charges shall, until otherwise directed, continue to be paid and applied to the same purposes as heretofore.

That it shall be the duty of every master or commander of any ship or vessel destined for the port of Natches, to stop at New-Orleans and there deliver to the collector of said port a manifest of the cargo on board such ship or vessel agreeably to law, on penalty of five thousand dollars. And it shall be the duty of said collector to transmit a certified copy of such manifest to the collector of the said port of Natches, and to direct an inspector to go on board such ship or vessel, and proceed therewith to the port of Natches, and there report such ship or vessel to the collector of said port of Natches, immediately after his arrival, when the duty of said inspector shall cease.

That foreign ships or vessels shall be admitted to unlade at the port of New-Orleans, Bayou St. John, and at no other port within the district of Mississippi; and ships or vessels belonging to citizens of the United States, coming directly from France or Spain, or any of their colonies, shall not be admitted to unlade at any port within the district of Mississippi other than New-Orleans, and Bayou St. John; and ships or vessels arriving from the Cape of Good Hope, or from any place beyond the same, shall be admitted to make entry at the port of New-Orleans, and no other port within the district, of Mississippi.

That the master or commander of every ship or vessel, bound to a port of delivery only, other than the port of Bayou St. John, in the district of Mississippi, shall first come to at the port of New-Orleans with his ship or vessel, and there make report and entry, in writing, and pay, or secure to be paid all legal duties, port fees, and charges, in manner provided by law, before such ship or vessel shall proceed to her port of delivery; and the master of every ship or vessel, arriving from a foreign port or place, or having goods on board, of which the duties have not been paid or secured, and bound to any port within the district of Mississippi (other than New-Orleans, or Bayou St. John) shall take an inspector on board, at New-Orleans, before proceeding to such port; and if any master of a ship or vessel shall proceed to such port of delivery, contrary to the directions aforesaid, he shall forfeit and pay five hundred dollars, to be recovered in any court of competent jurisdiction, with costs of suit.

That during the term of twelve years, to commence three months after the exchange of the ratification of the above-mentioned treaty shall have been notified at Paris, to the French government, French ships or vessels coming directly from France or any of her colonies, laden only with the produce or manufactures of France, or any of her said colonies; and Spanish ships or vessels, coming directly from Spain, or any of her colonies, laden only with the produce or manufactures of Spain, or any of her said colonies, shall be admitted into the port of New Orleans, and into all other ports of entry which may hereafter be established by law, within the territories ceded of the United States by the above mentioned treaty, in the same manner as ships or vessels to the United States coming directly from France or Spain, or any of their colonies, and without being subject to any other or higher duty on the said produce or manufacture, than by law now is, or shall at the time be payable, by citizens of the United States, on similar articles imported from France or Spain or any of their colonies, in vessels of the United States, into the said port of New Orleans, or other ports of entry in the territories above mentioned; or to any other or higher tonnage duty than by law now is or shall at the time be laid on the tonnage of vessels of the United States, coming from France or Spain or from any of their colonies, to the said port of New Orleans, or other ports of entry within the territories above mentioned.

Penalty on forging Sea Letters, Passports, &c. or using such.

By the law of the United States it is enacted, That if any person shall knowingly make, utter, or publish a false sea letter, Mediterranean passport, or certificate of registry, or shall knowingly avail himself of any such Mediterranean passport, sea letter or certificate of registry, he shall forfeit and pay a sum not exceeding five thousand dollars, to be recovered by action of debt, in the name of the United States, in any court of competent jurisdiction; and if an officer of the United States, he shall forever thereafter be rendered incapable of holding any office of trust or profit under the authority of the United States.

Registered Vessels sold out of the United States in certain cases to have the benefits they were formerly entitled to.

When any ship or vessel, which has been, or which shall be registered pursuant to any law of the United States, shall whilst such ship or vessel is without the limits of the United States, be sold or transferred in whole or in part to a citizen or citizens of the United States, such ship or vessel, on her first arrival in the United States thereafter, shall be entitled to all the privileges and benefits of a ship or vessel of the United States: *Provided*, That all the requisites of law in order to the registry of ships or vessels, shall be complied with, and a new certificate of registry obtained for such ship or vessel, within three days from the time at which the master or other person having the charge or command of such ship or vessel is required to make his final report upon her first arrival afterwards as aforesaid, agreeably to the thirtieth section of the act passed on the second day of March, one thousand seven hundred and ninety-nine, entitled, "An act to regulate the collection of duties on imports and tonnage." And it shall be lawful to pay to the collector of the district within which such ship or vessel may arrive as aforesaid, the duties imposed by law on the tonnage of such ship or vessel, at any time within three days from the time at which the master or other person having the charge or command of such ship or vessel, is required to make his final report as aforesaid, any thing to the contrary in any former law notwithstanding: *Provided always*, That nothing herein contained shall be construed to repeal or in any wise change the provisions, restrictions or limitations of any former act or acts, excepting so far as the same shall be repugnant to the provisions of this act.

Law of the United States, making provisions for unlading vessels obstructed by ice.

Where a ship or vessel shall be prevented by ice from getting to the port at which her cargo is intended to be delivered, it shall be lawful for the collector of the district in which such ship or vessel may be so obstructed, to receive the report and entry of any such ship or vessel, and with the consent of the naval officer (where there is one) to grant a permit or permits for unlading or landing the goods, wares or merchandize, imported in such ship or vessel at any place within his district, which shall appear to him to be most convenient and proper.

The report and entry of such ship or vessel, and of her cargo, or any part thereof, and all persons concerned therein shall be under and subject to the same rules, regulations, restrictions, penalties and provisions as if the said ship or vessel had arrived at the port of her destination, and had there proceeded to the delivery of her cargo.

Enticing and carrying away Soldiers, Apprentices and Debtors, and importing Convicts, Aliens, &c.

By an act of the United States, every captain or commanding officer of any ship or vessel, who shall enter on board such ship or vessel, as one of his crew, knowing him to have deserted or otherwise carry away any soldier in the service of the United States, or shall refuse to deliver him up to the order of his commanding officer, shall upon legal conviction, be fined at the discretion of the court, in any sum not exceeding three hundred dollars, or be imprisoned for any term not exceeding one year.

NEW-HAMPSHIRE.

By a law of the state of New-Hampshire, the master of every ship or other vessel must within three days, from and after the time of entering his ship or vessel, deliver to the selectmen or town clerk of the town where any such ship or vessel shall arrive, a true and perfect list, or certificate under his hand, of the christian and surnames of all persons, passengers and others, brought in such ship or vessel, not belonging thereto, and not heretofore inhabitants of this state, with a particular account of their several circumstances, so far as he shall know them, on penalty of forfeiting to the use of the said town, in which such vessel arrives, the sum of two pounds for each person: to be recovered by action by the selectmen, overseers of the poor, or town treasurer. And when any person so brought by any such master of vessel, shall be sick or lame, and likely to be chargeable, such master shall carry him or her out of the state again, within two months after request made, or give bond in a reasonable sum, with sufficient sureties, that said person shall not become chargeable to said town, and shall be liable to pay all charges of supporting any such person.

MASSACHUSETTS.

By a law of Massachusetts, it is enacted, That if any master or other person having charge of any vessel, shall therein bring into and land, or suffer to be landed in any place within the Commonwealth, any person, before that time convicted in any other state, or in any foreign country, of any infamous crime, or any for which he hath been sentenced to transportation, knowing of such conviction, or having reason to suspect it, or any person of a notoriously dissolute, infamous and abandoned life and character, knowing him or her to be such, shall for every such offence, forfeit the sum of *one hundred pounds*, one half thereof to the use of the Commonwealth, and the other half to the use of any person being a citizen of, and residing in the Commonwealth, who shall prosecute and sue for the same, by action of debt.

That the master or any other person, having charge of any vessel arriving at any place within the Commonwealth, with any passengers on board from any foreign dominion or country, without the United States of America, shall, within forty-eight hours after such arrival, make a report in writing under his hand, of all such passengers, their names, nation, age, character and condition, so far as hath come to his knowledge, to the overseers of the poor of the town or district at or nearest to which such vessel shall arrive, who shall record the same in a book kept for that purpose in their office. And every such master or other person that shall neglect to make such report, or that shall wittingly and willingly make a false one, shall, for each of these offences, forfeit the sum of *fifty pounds*, to be sued for and recovered by action of debt as aforesaid, by and to the use of such town or district.

By another act of the Commonwealth of Massachusetts, every master or commander of any outward bound ship or vessel that shall hereafter carry or transport out of the government, any person under the age of twenty-one years, or any apprentice, or any indented servant, to any parts beyond sea, without the consent of his parents, master or guardian, shall forfeit and pay the sum of *fifty pounds*; one moiety to the use of the government, and the other moiety to him or them that shall sue for the same; and be further liable for the damages sustained by the parent, master or guardian, in a special action of the case.

RHODE-ISLAND.

If any master or other person, having charge of any vessel, shall bring into and land, or suffer to be landed in any place within the state, any person before that time convicted in any other state, or in any foreign country, of any infamous crime, or of any crime for which he had been sentenced to transportation, knowing of such conviction, or having reason to suspect it, or any person of a notoriously dissolute, infamous and abandoned life and character, knowing him or her to be such, shall, for every such offence, forfeit the sum of *four hundred dollars*, one half thereof to the use of the state, and the other half to the use of any person, being a citizen of, and residing within the state, who may prosecute and sue for the same by action of debt.

The master, or any other person, having the charge of any vessel arriving at any place within the state, with any passengers on board, from any foreign dominion or country, without the United States of America, shall within forty-eight hours after such arrival, or before landing any such passenger, make a report in writing, under his hand, of all such passengers, their names, nation, age, character and condition, so far as shall have come to his knowledge, to the overseers of the poor of the town, at which such vessel shall arrive. And every such master or other person, who shall neglect to make such report, or who shall wittingly and willingly make a false one, shall for each of these offences forfeit the sum of *two hundred dollars*, to be sued for and recovered by action of debt as aforesaid, by the town treasurer, to the use of such town.

CONNECTICUT.

By a law of the state of Connecticut, it is enacted, That any person who shall bring into the state any poor and indigent person, or leave him or her in any town within the same, of which town he or she is not an inhabitant, such person so bringing in and leaving such poor and indigent person, shall forfeit and pay for every such person so brought in and left, the sum of *sixty-seven dollars*, to be recovered in any court proper to try the same, to and for the use of such town.

No person convicted of any crime in any foreign country, and sentenced therefor to be transported abroad, shall be imported into the state; and any person or persons who shall, contrary to the true intent and meaning of the law, import, or bring into the state, any such convict, or be aiding or assisting therein, knowing such person so imported to be a convict, and sentenced as aforesaid, shall forfeit and pay to the treasurer of the state, the sum of *three hundred and thirty-four dollars*, for every such convict so imported as aforesaid. And whenever any person or persons shall be prosecuted for any breach of this law, such person shall be adjudged guilty of the same, unless they shall make full proof that they had lawful right to import the same; and that such importation was not contrary to the true intent and meaning of the law.

NEW-YORK.

If any master of any ship or other vessel, shall bring or land within the state, any person who cannot give a good account of himself or herself, to the mayor or recorder of the said city for the time being, or who is likely to be a charge to the said city, such master shall, within one month, carry or send the person so imported by him back again to the place from whence he or she came, and shall for that purpose enter into bond to the mayor, aldermen and commonalty of the city of New-York, with one or more surety or sureties, to be approved of by such mayor or recorder, in the sum of *one hundred pounds*, conditioned for the purposes aforesaid, or shall enter into bond to the said mayor, aldermen and commonalty of the said city, with one or more sufficient surety or

sureties, to be approved by such mayor or recorder, as aforesaid, in the sum of *one hundred pounds*, conditioned that the person so imported shall not be or become a charge to the said city as aforesaid, or any other city or town in the state: and in case such master of any ship or other vessel shall refuse to become bound as aforesaid, it shall and may be lawful for such mayor or recorder by warrant under his hand and seal, directed to any constable of the said city, to cause such person so refusing to be committed to the common gaol of the said city, there to remain until he shall consent to become bound as aforesaid; and such bond shall not be avoided by plea of duress.

Every master of any ship or other vessel, who shall enter the same in the Custom house of the city of New-York, shall within twenty-four hours after his arrival, make report in writing, on oath to the mayor of said city, or in case of his sickness or absence, to the recorder of the said city, for the time being, of the name and occupation of every person who shall be brought into port in his said ship or other vessel; and in case of neglect, the master of such ship or other vessel, shall forfeit the sum of *fifty dollars* for every person so neglected to be reported. And if any person so neglected to be reported to the mayor or recorder of the said city as aforesaid, shall be a foreigner, the master of such ship or other vessel so neglecting to make report as aforesaid, shall forfeit the sum of *seventy-five dollars* for every foreigner so neglected to be reported.

Every master of any ship or other vessel, who shall, after the fifteenth day of May, 1797, arrive at the city of New-York, with emigrants from any foreign country, he shall, previous to the landing of any such emigrants, give a bond to the mayor, recorder and aldermen of the said city of New-York, with two sufficient sureties, to be approved of by the said mayor, recorder and aldermen, conditioned to indemnify and save harmless the said city of New-York, from all and every expense and charge which shall and may be incurred for the support and maintenance of any such person so imported, as the mayor or in his absence or sickness, the recorder of the said city for the time being shall deem likely to become chargeable to the said city; and if any master of any ship or other vessel shall suffer or permit any such emigrant to land previous to giving such bond as aforesaid, every such master shall forfeit and pay to the mayor, aldermen and commonalty of the city of New-York, the sum of *five hundred dollars*, for each and every such person whom he shall permit and suffer to land, and for whom he shall neglect or omit to give security as aforesaid.

NEW-JERSEY.

In New-Jersey it has been ordained that no master of a vessel, or other person, shall knowingly or willingly import, bring or send, either by himself or others, by land or water, any felon, convict, or person convicted of any infamous crime, or under sentence of death, or other legal disability, incurred by a criminal prosecution, or who shall be delivered or sent to him from any prison or place of confinement, in parts out of the United States; all persons offending against the above provision and all who may aid or assist therein, to forfeit *200 dollars* for every offence, to be recovered with costs, by any person suing for the same, in an action of debt; one moiety of such forfeiture to go to the State, the other to the person suing for the same.

All persons convicted of an offence under this act, to enter into a recognizance with sufficient sureties, to convey and transport, within such time as the court may direct, such felon, convict, or other person of the description aforesaid, imported, brought or sent in as aforesaid by him, or with his aid and assistance, and in default of entering in such recognizance, to be committed to gaol, there to remain without bail or mainprize, till the same be entered into, or such convict, &c. as aforesaid, be sent out of the State.

DELAWARE.

In Delaware it is ordained, that no person shall presume to depart this government, who hath resided three months next before his departure, in any of the counties of the same, but shall first signify the same in writing, under his hand affixed on the court house door in the county wherein he shall reside, at least *30 days* before his departure; or shall have a certificate under the hands and seals of two justices of the peace of the county.

If any person shall presume to transport or convey (or be aiding or assisting therein) any person out of this government, either by land or water, that hath not complied with this act, he shall make good and pay to the parties aggrieved, all damages that shall accrue by reason of the aiding, assisting, transporting or carrying away any such person as aforesaid, to be recovered by bill, plaint or information, in any court of record within this government.

By the institutions of Delaware it is enacted, that all masters of vessels, and others, who shall import, land or bring within the State, any person in the condition of a servant or otherwise within the meaning of this act, who hath been convicted of any murder, burglary, rape, sodomy perjury, or any other felony, at any time before such coming into this government, shall before the said convicts be put on shore, pay the sum of *five pounds* for every such so brought in, the one moiety thereof to the governor for the time being, for the support of government, the other moiety to the collector appointed by this act, or the informer; and further, shall become bound with good and sufficient security to the treasurer of the county where such importation shall be made, in the sum of *fifty pounds*, for the good behaviour of such convict for the space of one year next after his or her coming into this government.

Whereas it has been a practice for masters of vessels and others, trading to this government, in order to evade this and former acts made to prevent the importation of convicts, and poor indigent persons, to land such in some adjacent governments, from whence they have been afterwards secretly brought into this government,

Be it enacted, That if any such convict as aforesaid, servant or passenger, being poor or impotent persons, shall be imported into the river Delaware, and be found within this government at any time within the space of twelve months next after their being imported as aforesaid, whether they were landed within this government or elsewhere, the collector of the duties appointed by this act, or any justice of the peace, shall and may cause to be apprehended and examined on oath or affirmation, all such, and all other persons who may be supposed able to make any discovery of the time or manner of the importation or coming of such into this government, and from whence they last came, how long they have been come from beyond seas, of what country, and in what vessel, and who was master or merchant of the same, and whether she was, at the time of such persons being shipped or coming on board, destined for this government; and if on examination it shall appear that the said persons were shipped or took their passages for this government, then the collector or justice of the peace, before whom such examination shall be taken, shall compel the persons, if convicts, immediately to comply with the directions of this act, by paying the duties hereby imposed on them, and giving the security above directed; and shall also, and are hereby empowered and required to send for the master or merchant of such vessel, in which such persons were supposed to be imported, and to examine the master or merchant upon oath or affirmation concerning the said passengers, servants or convicts, and their importation or coming into this government, and if it appear that such person so apprehended, or any other persons being convicts as aforesaid, were shipped or taken on board to be imported into this government, and put or permitted to go on shore, by such master or merchant in any other government upon the river Delaware, or upon any island or place within the said river without making report, and complying with the directions of this act, the said master or merchant shall give security for his appearance at the next general quarter sessions of the peace for the county where such examination is taken; and if, on presentment or information, legally convicted of such fraudulent practice, he or they so offending, shall forfeit the sum of *twenty pounds* for every person so by him or them brought in as aforesaid, and put or permitted to be put on shore; and afterwards, at any time within the space of twelve months next after their being landed or put on shore shall be found within this government, without making the entry, paying the duties, and giving the security required by this act; one half to the governor, the other to the collector or informer, and shall further pay the same duties, and give the same security for such convicts as aforesaid, as if such persons had been imported into this government, and report thereof made, according to the direction of this act.

On information given to any two justices of the peace within this government, that any old persons, infants, maimed, lunatic, or any vagabond or vagrant persons are imported, come, or brought into this government, the said justices shall cause such persons to be brought before them; and if upon examination, they shall judge such person or persons likely to become chargeable to the county where they are found or were imported, it shall and may be lawful for the said justices, by warrant or otherwise, to send for the said master or merchant, or other person who imported any such person or persons as aforesaid, as are likely to become chargeable as aforesaid, and upon proof of their being the importers or owners of such persons who shall be likely to become chargeable as aforesaid, shall and may compel the said master, merchant, or importer of such persons, to give sufficient security to carry and transport such persons from whence they were imported or otherwise to indemnify the inhabitants of this government from any charge that may be brought upon them by the coming of such persons into this government.

All masters of vessels, merchants and others, who shall bring into this government, by land or water, any men or women, passengers or servants, shall within twenty-four hours after arrival into any place within the same, make entry, and give, or cause to be given, upon oath or affirmation, to the collector of the said duties where the importation is made, a true account of the names of the servants and passengers so brought in; and the said collectors are hereby enjoined immediately, by warrant or otherwise, to call before them the said merchant, master, or other person importing such servants or passengers, and to examine on oath or affirmation, the said master, merchant or other person importing such servants or passengers, and all other persons who may be supposed to have any knowledge of the character or circumstances of such servants or passengers, and thereupon shall grant the master, merchant or owner, or other person having the charge or care of any servants or passengers so imported or brought in, a certificate containing the names of such whom the said collector shall judge fit to be landed, or disposed of as servants, and do not appear to him to have been formerly convicted of any of the crimes mentioned in this act, or such as do not appear to be such infants, lunatic, maimed, aged, impotent, or vagrant persons, as he or they shall judge likely to be chargeable to the inhabitants of this government; for which examination, certificate and permit, there shall be paid, where such importation is made, the sum of *six pence* for every person so imported; and there shall likewise be paid to the collector aforesaid, for each bond he shall take in pursuance of any thing required to be done by virtue of this act, the sum of *two shillings and six pence*.*

If, after such examination taken, and certificate granted as aforesaid, it appear that any of the said persons so landed or imported, are convicts, the master, merchant, or other person who im-

* This clause being thought rather derogatory to the freedom of persons of good name and circumstances, it was repealed by the second section of an act, passed on the 7th of May, 1797, as to all who could prove by certificate under the hand of the master, merchant or owner of the vessel in which such persons were imported, that they had paid their passage money, or were not indebted to the master, merchant or owner, and a penalty of *three pence* imposed on exacting the duty. But by a subsequent act the duty is revived, and six cents made payable by the master of the vessel to the visiting physician, under that statute, for each passenger so imported, to be appropriated to the use of the poor.

ported such, shall be liable to pay the same duty, and give the same security, as if no examination had taken place, or certificate been granted.

If any person shall be imported, or brought into, or landed within this government, contrary to this act, the master of the vessel, merchant or other person so importing, shall, for each person so imported, brought in, or landed, forfeit and pay the sum of *ten pounds*, to be appropriated as aforesaid, and recovered by any person who shall sue for the same, in any court of record within this government, by bill, plaint or information, wherein no session, protection, or wager of law shall be allowed.

PENNSYLVANIA.

The legislature of Pennsylvania has ordained that no captain or master of any vessel, or any other person or persons, shall knowingly or willingly import, bring, or send, or cause, or procure to be imported, brought or sent, or be aiding or assisting therein, into this commonwealth, by land or water, any felon, convict, or person under sentence of death, or any other legal disability, incurred by a criminal prosecution, or who shall be delivered or sent to him or her from any prison or place of confinement, in any place out of the United States.

Every captain or master of a vessel, or any other person, who shall so as aforesaid import bring or send, or cause, or procure to be imported, brought or sent, or be aiding and assisting therein, into this commonwealth, by land or water, or who shall, as factor or agent of the person or persons so offending, or as consignee, sell or offer for sale any such person as above described, knowing him or her so to be, shall suffer three months imprisonment, without bail or mainprize, and shall forfeit and pay, over and beyond the costs of prosecution, for every person so brought, imported or sent, or caused, or procured so to be, or sold, or offered for sale, *fifty pounds* lawful money of Pennsylvania, one half thereof to the commonwealth, and the other half to him or her who shall sue or prosecute for the same; and which penalty shall be recovered by action of debt or information, in any court of record; and the defendant or person sued, or impleaded therefor, shall be ruled to give special bail in like manner, and under the same rules as is usual in actions of debt founded on contract.

Every person who shall offend against this act, or any thing herein contained, shall, on conviction thereof, be adjudged and ordered to enter into a recognizance, with sufficient sureties, to convey and transport, within such reasonable time as shall be ordered and directed by the court, to some place or places without the bounds, limits and jurisdiction of the United States, every such felon, convict, or other person of the description aforesaid, which he or she shall have been convicted of having brought, imported or sent, or having been aiding or assisting therein, into this commonwealth, against the true intent and meaning of this act, or of having so as aforesaid sold, or offered for sale; and in default of entering into such recognizance, with such sureties as aforesaid, he or she shall be committed to gaol, there to remain without bail or mainprize, until he or she shall enter into such recognizances, with such sureties as aforesaid, or until he or she shall cause every such person so as aforesaid by him or her imported, brought or sent, or caused or procured to have been imported, brought or sent, or that he or she shall have been aiding or assisting in the importing, bringing or sending into this commonwealth, against the true intent and meaning of this act, or that he or she shall have been convicted of having so as aforesaid sold or offered for sale.

MARYLAND.

The State of Maryland has thought proper to continue similar restrictions. It is there enacted, that every person intending to depart this State shall first give notice of his intended departure, by setting up his name at the Secretary's office of this province, and also at the door of the court house of the county where such person resides at the time of setting up his name, for the full space of three months, within which time, if no person shall underwrite the said person so setting up his name, it shall be lawful for the governor, keeper of the great seal, or secretary of this State for the time being (upon certificate thereof from the clerk of the provincial court, and the clerk of the county where such name shall be set up as aforesaid) to sign a pass to such person to depart this State, for which the party shall pay to the secretary for signing the same, the sum of *two shillings and six pence* and to the clerks of the provincial and county courts, *twelve pence* each. If any person, on any sudden or emergent occasion is necessitated to depart this province, not having set up his name as aforesaid, then such person giving good and sufficient security to the governor, keeper of the great seal, or secretary, to discharge and pay all debts, dues and demands whatsoever, due, owing or demandable from the said person to any of the inhabitants of the said State, may have a pass, containing a certificate of such security given, for which he shall pay the same fee as aforesaid.

Masters of ships or other persons, who shall transport or convey out of this province, by land or water, any person indebted to any inhabitant thereof, without such pass, shall be liable for all the debts and engagements of such person, due within this province, except the same be otherwise satisfied, or that the transporter or conveyer away of such person, procure his return within one month after, whereby he may be liable to justice here.

Every such person as aforesaid, who shall transport or convey out of this State, any servant, whether a servant by condition, for wages, indenture, or custom of the country, shall be liable to pay and satisfy to the master or owner of such servant, all such damages as shall be made appear to be justly due, for the want of such servant, as the court before whom such cause shall be tried, shall think fit.

Persons enticing, transporting, or secretly carrying or sending away apprentices, servants or slaves, belonging to inhabitants of this State, to forfeit and pay to the employer or owners, *treble damages and costs*, to be adjudged by the justices of each respective county court, or the justices of the provincial court, for the time of such apprentices, servants, or slaves, being transported or carried away as aforesaid.

If any person conceal, harbour, or in any way promote or facilitate the running away of apprentices, he shall be subject to the same fines and penalties as the harbourers of servants now are by the laws of this state.

To prevent masters of vessels affording shelter for servants or slaves when absenting themselves from their lawful service, the legislature enacted, that no master of a vessel coming into this state, or entering to trade therein, shall suffer any slaves or servants to frequent his vessel, or come on board, or conceal such on board the same, or any other vessel on penalty of paying for every hour the act shall be violated, *twenty shillings* current money, to be recovered in a summary way before one justice of the peace with costs.

VIRGINIA.

By a law of the commonwealth of Virginia, it is enacted, that no master of a ship or other vessel shall transport or carry any person whatsoever out of the commonwealth, unless such person shall first have published for six weeks successively in the Virginia Gazette, his or her resolution to depart therefrom, under the penalty of answering and paying every debt and duty such person at his or her departure out of the commonwealth shall owe, or stand bound to for the commonwealth, or to any citizen thereof, by judgment, bond, bill, covenant, account, or by any other ways or means whatsoever, to be recovered against such master by action of debt, in any court of record within the commonwealth.

Every master of every ship or other vessel offending herein, shall be liable to be sued at any time for any debt due or owing from the person so transported. And whensoever any such action or suit shall be brought against him, the court wherein the same shall be depending, may rule the defendant to give special bail, and the clerk shall endorse on the writ, that appearance bail is required: *Provided*, the plaintiff shall make affidavit before a magistrate of the cause of action, which shall be transmitted to the clerk of the court.

By another law of Virginia it is enacted, That no captain or master of any vessel, or any other person coming into the commonwealth by land or by water, shall import or bring with him any person who shall have been a felon, convict, or under sentence of death, or any other legal disability incurred by a criminal prosecution, or who shall be delivered to him from any prison or place of confinement in any place out of the United States.

Every captain or master of a vessel, or any other person, who shall presume to import or bring into the commonwealth by land or by water, or shall sell, or offer for sale, any such person as above described, shall suffer three months imprisonment, without bail or mainprize, and forfeit and pay for every such person so brought and imported, or sold or offered for sale, the penalty of *fifty pounds*, current money of Virginia, one half to the commonwealth, and the other half to the person who shall give information thereof; which said penalty shall be recovered by action of debt or information, in which the defendant shall be ruled to give special bail.

Every master of vessel, or other person, who shall bring into the commonwealth, by water or by land, in any vessel, boat, land carriage, or otherwise, any free negro or mulatto, shall forfeit and pay for every such person so brought, the penalty of *one hundred pounds* lawful money; one half to the commonwealth, and the other half to the person who shall inform thereof, to be recovered by action of debt or information, in any court of record, and the defendant in every such case shall be ruled to give special bail.

This act shall not extend to masters of vessels bringing into the state any free negro or mulatto employed on board and belonging to such vessel, and who shall therewith depart, nor to any person travelling in the state, having any free negro or mulatto as a servant.

NORTH CAROLINA.

It is enacted, that the master of every vessel coming into this government, shall, within four days next after his arrival, and before he trade or land any goods (living creatures excepted) enter into bond in the naval office, with one sufficient freeholder or merchant, in the sum of *five hundred pounds*, that such master shall not carry off any person out of this state, without a ticket first had and obtained from the naval officer, and signed by the governor, or commander in chief, for the time being, (persons coming into this state in the same vessel; women whose husbands are resident in the country; persons under age, and sailors who have not resided in the government above two months, excepted) nor shall depart himself, without leave, under the penalty of *fifty pounds*, one third to the Lord's proprietors, one third to the commander in chief, and the other third to the informer.

That the said bond shall be taken in the name of the governor, or commander in chief for the time being, payable to himself, his heirs, successors or assigns, but to the use and in trust for such as appear to be injured by the said master's non-performance of the condition above expressed, and shall be assigned to any person so injured, petitioning for the same, who may maintain an action thereon.

No ticket shall be granted to any person intending to export him or herself out of this government (except as before excepted) until sufficient security be first given to the naval officer, for the payment of all such debts as the party so intending to depart shall be chargeable with, and for which, actions shall be commenced, within four months next after such security given; or, until certificate be first made to the naval officer by the clerk of the precinct court where the party shall reside, that he hath published his intention to depart the government, by affixing a note to the court-

house door, publicly to be read by all persons during the sitting and continuance of the two courts next preceding such certificate, without being under written, or any demand made to hinder his or her departure.

Quarantine.

By an act of Congress respecting Quarantines and Health Laws, it is provided, That the Quarantines and other restraints which shall be required and established by the health laws of any state, or pursuant thereto, respecting any vessels arriving in, or bound to any port or district thereof, whether from a foreign port or place, or from another district in the United States, shall be duly observed by the collectors, and all other officers of the revenue of the United States, appointed and employed for the several collection districts of such states respectively, and by the masters and crews of the several revenue cutters, and by the military officers who shall command in any fort or station upon the sea coast; and all such officers of the United States shall be, and they hereby are, authorized and required, faithfully to aid in the execution of such quarantines and health laws, according to their respective powers and precincts, and as they shall be directed from time to time by the Secretary of the Treasury of the United States. And the said secretary shall be, and he is hereby authorized, when a conformity to such quarantines and health laws shall require it, and in respect to vessels which shall be subject thereto, to prolong the terms limited for the entry of the same, and the report or entry of their cargoes, and to vary or dispense with any other regulations applicable to such reports or entries: *Provided*, that nothing herein shall enable any state to collect a duty of tonnage or impost, without the consent of the Congress of the United States thereto: *And provided*, that no part of the cargo of any vessel shall in any case be taken out or unladen therefrom, otherwise than as by law is allowed, or according to the regulations hereinafter established. When by the health laws of any state, or by the regulations which shall be made pursuant thereto, any vessel arriving within a collection district of such state, shall be prohibited from coming to the port of entry or delivery by law established for such district, and it shall be required or permitted by such health laws, that the cargo of such vessel shall or may be unladen at some other place within, or near to such district, the collector authorized therein, after due report to him of the whole of such cargo, may grant his special warrant or permit for the unloading and discharge thereof, under the care of the surveyor, or of one or more inspectors, at some other place where such health laws shall permit, and upon the conditions and restrictions which shall be directed by the secretary of the treasury, or which such collector may, for the time reasonably judge expedient for the security of the public revenue: *Provided*, that in every such case, all the articles of the cargo so to be unladen, shall be deposited at the risk of the parties concerned therein, in such public or other warehouses or inclosures, as the collector shall designate, there to remain under the joint custody of such collector, and of the owner or owners, or master or other person having charge of such vessel until the same shall be entirely unladen or discharged, and until the goods, wares or merchandize which shall be so deposited may be safely removed, without contravening such health laws; and when such removal shall be allowed, the collector having charge of such goods, wares or merchandize, may grant permits to the respective owners or consignees, their factors or agents, to receive all goods, wares or merchandize, which shall be entered, and whereof the duties accruing shall be paid or secured, according to law, upon the payment by them of a reasonable rate of storage: which shall be fixed by the secretary of the treasury for all public ware-houses and inclosures.

There shall be purchased or erected under the orders of the President of the United States, suitable ware houses, with wharves and enclosures where goods and merchandize may be unladen and deposited from any vessel which shall be subject to a quarantine, or other restraint pursuant to the health laws of any state as aforesaid, at such convenient place or places therein as the safety of the public revenue, and the observance of such health laws may require.

When by the prevalence of any contagious or epidemical disease, in or near the place by law established, as the port of entry for any collection district, it shall become dangerous or inconvenient for the collector and the other officers of the revenue employed therein, to continue the discharge of their respective offices at such port, the secretary, or in his absence the comptroller of the treasury of the United States, may direct and authorize the removal of the collector and the other officers employed in his department, from such port to any other more convenient place, within, or as near as may be to such collection district, where such collector and officers may exercise the same authorities and shall be liable to the same duties, according to existing circumstances, as in such lawful port or district; and of such removal public notice shall be given as soon as may be.

[As the above law of the United States refers to the several health laws of the different states, the Editor has therefore taken great pains to procure copies of them, part of which he has obtained. These laws being from their subject liable to frequent alterations, he cannot vouch for the authenticity of the following abstracts; it is, however, as accurate as the nature of the subject will admit of. It is probable that masters of vessels will be furnished with copies of the health laws by the proper officers of the port immediately on their arrival.]

NEW-HAMPSHIRE.

BY a law of this state it is provided, that whenever any ship or other vessel shall arrive in any port in the state, having any person on board, infected with the plague, small-pox, pestilential or malignant fever, or shall have been so infected during the voyage, or having on board any goods which may reasonably be apprehended to have any infection of such diseases, it shall be the duty of the master or commander of such ship or vessel to give immediate information thereof to the selectmen of Portsmouth, and it shall be the duty of the selectmen of Portsmouth, upon information of the arrival of such ship or vessel, and they are hereby empowered immediately to take such prudential methods and precautions as to them appear necessary, to prevent the spreading such infection, and may order and appoint the distance at which such ship or vessel shall lie from the shore, and shall have power to remove the same at the expense of the owner or master, if the master or commander shall refuse or neglect to remove, after receiving from said selectmen an order therefor; and the said selectmen are hereby further empowered to forbid or prevent any person coming on shore from such ship or vessel, or any goods being landed from the same, until such precautions be taken as the public safety may to them appear to require. And if the commanding officer of any such ship or vessel shall suffer any person or thing to be put on shore, without permission first obtained therefor, under the hands of the said selectmen, or a major part of them, he shall forfeit and pay the sum of four hundred dollars.

If any person come on shore from any such ship or vessel without such liberty, any justice of the peace may cause such person to be confined in such proper place as the selectmen aforesaid may appoint, for a term of time not exceeding 30 days, at his own expense, to be recovered by them by action of debt, in any court proper to try the same.

The said selectmen shall have full power to seize and keep any goods landed from such vessel, without such leave, until they shall cause the same to be cleansed at the expense of the owner of such goods—and if the owner neglect to pay such expense, the selectmen shall have power to sell so much of the goods as will defray the reasonable charges of seizing, keeping and cleansing the same.

If any person or persons, seamen or passengers, belonging to or on board any vessel arriving at any port or harbour within the state, shall be infected with the plague, small-pox, pestilential or malignant fever, during the voyage, the commander of such ship or vessel, shall immediately on his entrance into such port or harbour, cause his vessel to be anchored, and give information thereof to the commanding officer at Fort William and Mary, if the vessel happens to be in Portsmouth Harbour, or in case of the vessel's being in any other port to the nearest field officer of the militia, whose business it shall be immediately to notify the president, or in his absence two of the council, and receive their direction. And if the commanding officer shall suffer any person or thing to be landed, or set on shore out of said vessel, without permission obtained either from the president, or in his absence, from two of the council, he shall forfeit and pay the sum of one hundred pounds. And if any person who may come in such vessel, either as seaman or passenger, shall presume to come on shore before license is obtained as aforesaid, he shall forfeit the sum of fifty pounds.

By another law of New-Hampshire, it is enacted, that whenever any ship or vessel shall arrive at the port or harbour of Portsmouth after the fifteenth day of May, and before the first day of November in any year, from any country, place or port, subject to the yellow fever or any malignant, pestilential or contagious disorder, or where the yellow fever, or any malignant contagious disorder is usually or often prevalent, it shall be the duty of the health officers, or any one of them, immediately to examine into the state and circumstances of such ship or vessel, and if it shall be the opinion of the said health officers or any two of them, that such ship or vessel, her cargo, or any person on board of the same is infected with any such malignant contagious disorder and that her coming to or remaining at or near any of the wharves or compact parts of the said town, would be injurious or dangerous to the health of said inhabitants, it shall be the duty of said health officers, or some two of them, by a writing under their hands, to order and direct the owner or owners, master or commanding officer of such ship or vessel, to remove such ship or vessel to some place of safety not exceeding three miles distance from said town, in such order to be specified, there to remain to cleanse and purify such ship or vessel and her cargo, for such a term and space of time not exceeding thirty days, as shall be limited and specified in such order—and in case the owner or owners, master or commanding officer of any such ship or vessel shall disobey or neglect to perform and comply with such order, or shall move to bring such ship or vessel, or any part of her cargo, or any articles on board such ship or vessel, or permit or suffer the same to be moved or brought on shore before the expiration of the time limited and specified in such order, without having previously obtained permission in writing to do the same from two of said health officers, or from a majority of the selectmen of said town, such owner or owners, master or commanding officer so offending, shall forfeit and pay to said town, a sum not exceeding two thousand dollars, which may be recovered with costs in an action in the name of the said town, to be prosecuted by said health officers, in any court proper to try the same; and if the owner or owners, master or commanding officer, of any such ship or vessel, shall neglect to remove the same, agreeable to such order, or having removed the same, shall again before the expiration of the time limited and specified in such order, bring such ship or vessel, or cause the same to be brought to or near any wharf in said town or near any compact parts of said town, without having previously obtained such permission there-

for, as is herein above provided, the said health officer or some two of them, taking with them sufficient assistance, shall remove such ship or vessel to the place specified in said order, there to remain at the risk of the owner or owners, until the expiration of the time in such order limited and specified—and the expense of removing such ship or vessel and keeping the same, may be recovered against such owner or owners, master or commanding officer, with double costs, in the same way and manner as is provided for recovering the expense of removing or destroying nuisances and putrid substance or matter.

MASSACHUSETTS.

BY a law of the Commonwealth of Massachusetts, to prevent the spreading of contagious sickness, it is enacted, that inquiry shall be made by the officer or other person on duty at the castle in the harbour of Boston, of every vessel coming from sea, and passing by the said castle, whether any infectious sickness be on board, or has been on board, since such vessel left the port from whence she last came; and if any such vessel has any sickness on board, or has had any on board, since her leaving such port, in such case, orders shall be given by such officer, or other person on duty, to the master or commander of such vessel, immediately to anchor, and to remain at anchor until a certificate shall be obtained from the major part of the selectmen of the town of Boston, that they are of opinion that such vessel may come up to the town without danger to the inhabitants, or until the said master or commander shall receive orders from the said selectmen to anchor his vessel near the hospital on Ransford's island, in the harbour of Boston. And in case any master or commander of a vessel shall by himself or the people on board, make false answer, when inquired of as aforesaid, by the officer or other person on duty as aforesaid, or after orders are given as aforesaid, shall neglect or refuse to anchor near the castle as aforesaid, or come on shore, or suffer any passenger or other person belonging to the vessel to come on shore, or any goods to be taken out before the vessel shall have anchored, or without liberty from the selectmen as aforesaid; or in case any master or commander of a vessel ordered to anchor near the hospital aforesaid, shall neglect or refuse so to do; in every such case, every master or commander so offending, shall forfeit and pay for each offence, the sum of *four hundred dollars*, or suffer six months' imprisonment.

Upon application made to the selectmen of the town of Boston, by any master or commander of any vessel at anchor near the hospital as aforesaid, the said selectmen are hereby empowered to permit such passengers, goods, or lading, as they shall judge free from infection, to come on shore, or to be taken out and disposed of as the owners shall see fit; and such passengers and goods as shall not be permitted as aforesaid, shall remain on board or be landed on said island; and if any master or commander of any such vessel, for the time being, shall come on shore, or suffer any of his people or passengers to come on shore, or any boat to come on board, or suffer any goods to be taken out of his vessel, unless permitted as aforesaid, or shall come up to said town, with his vessel, until by a certificate under the hands of the said selectmen, or a major part of them, it shall appear that said vessel, company and goods are clear of infection, and the orders for stopping the same be removed, or taken off, he shall for every such offence, forfeit the sum of *two hundred dollars*; and in case he be not able to pay that sum, he shall suffer three months imprisonment; and if any sailors or passengers, coming in said vessel, shall, without the knowledge or consent of the master or commander, presume to come on shore, or up above the castle aforesaid, or if any person shall knowingly presume to go on board from shore, or go to the aforesaid house or island in time of infection there, without leave as aforesaid; or if any person put sick into the said house or sent there on suspicion of being infected, shall presume to go off the said island without leave as aforesaid, any person offending in any of the particulars above mentioned, shall forfeit the sum of *two hundred dollars*; and in case such person be not able to pay such forfeiture, he shall suffer two months' imprisonment.

Whenever any ship or vessel wherein any infection or infectious sickness has lately been, shall come to any harbour within the state, or whenever any person or persons belonging to, or that may either by sea or land, come into any town or place near the public hospital aforesaid, shall be visited, or shall lately before have been visited with any infectious sickness, two of the justices of the peace or selectmen of such place, be, and hereby are empowered immediately to order the said vessel and sick persons to the said hospital, there to be taken care of according to the directions of this act; and where any such ship, vessel, or persons cannot, without great inconvenience and damage, be ordered to the aforesaid hospital, in any such case the rules and directions are to be observed which are provided in the first enacting clause of the act; and in case the master or mariners of any vessel ordered to the hospital as aforesaid, shall refuse or delay for the space of six hours after such orders being given to said master, or either of the owners of said vessel, or of the factors, or either of the said owners of the goods, to come to sail, if wind and weather permit, in order to proceed to said hospital, such master so refusing, shall forfeit and pay the sum of *four hundred dollars*; and each mariner so refusing, the sum of *one hundred dollars*; and in case they be not able to pay the said sums, they shall suffer six months imprisonment.

If any master, seaman or passenger, belonging to any vessel, on board which any infection is, or may have lately been, or suspected to have been, or which may have come from any port where any infectious mortal distemper prevails, shall refuse to make answer on oath to such questions as may be asked him or them relating to such infection, by the selectmen of the town to which such vessel may come (which oath the said selectmen are hereby empowered to administer) such master, seaman, or passenger, so refusing, shall forfeit the sum of *two hundred dollars*; and in case he be not able to pay said sum, he shall suffer six months imprisonment.

And the selectmen of Boston are hereby authorized and directed to provide nurses, assistants, and necessaries, for the comfort and relief of such sick persons as may be sent to said hospital as aforesaid; the charge thereof to be borne by the said persons themselves, if able, or if poor and unable, by the towns to which they respectively belong; or if not inhabitants of any particular town, or other place within this state, then by the commonwealth.

Whenever any vessel shall arrive at any port, other than Boston, within the commonwealth, having on board any person visited with the plague, small-pox, malignant fever, or any other pestilential disease, the master, commander, or pilot thereof, shall not bring such vessel up near the town of the port where she first arrives, until liberty be first granted in writing by the selectmen thereof; but they may bring such vessel to an anchor in such place below the town as will be most for the safety of the inhabitants thereof, and the preservation of the vessel and the people on board, there to wait for orders from the selectmen of such town before any passenger or person belonging to, or any thing on board the same, be brought on shore; and any master or commander of such vessel who shall be found guilty of a breach of the law contained in this section, shall forfeit and pay a fine of *two hundred dollars* for every such offence, upon conviction thereof before any court proper to try the same; and any pilot who may go on board any such vessel, and pilot the same up to the town without liberty first had and obtained from the selectmen thereof as aforesaid, shall forfeit and pay a fine of *fifty dollars* for every such offence.

RHODE ISLAND.

No master or commander of any ship or other vessel, who shall come into any port or harbour of the state, and shall have any person or persons on board sick of the small-pox, or any other contagious distemper, or who has had any person sick of such distemper in the passage, or who shall come from any port or place usually infected with the small-pox, or where any other contagious distemper is prevalent, shall presume to bring such vessel to anchor in any of the ports of the state within the distance of one mile of any public ferry, pier or landing place, or permit or suffer any person or persons on board such vessel to be landed, or any person to come on board such vessel without a license first had and obtained from the governor or lieutenant governor, or, in their absence, from one or more of the assistants of the state, or, in his or their absence, from two or more justices of the peace or wardens of such town, where such vessel shall arrive, on the penalty of forfeiting *four hundred dollars* to and for the use of the state, to be recovered by the general treasurer, by action of debt, in any court of common pleas. And it shall be the duty of such master or commander, on his first arrival in any port in the state, to hoist and keep his colours in the shrouds of his ship or vessel, as a signal of having come from such infected place, or having infection on board.

If any person or persons whosoever shall presume to land or come on shore from on board such vessel without license first had and obtained as aforesaid, it shall be lawful for any assistant, justice of the peace or warden, to send back such offender or offenders immediately on board such vessel, or confine him or them on shore, in such convenient place as to him shall appear most effectual to prevent the spreading of any infection, until the town council of such town shall have information and opportunity to remove said offender or offenders, as they are hereafter empowered and directed; and the person or persons so offending shall satisfy and pay all charge that shall arise thereon, and also each of them shall forfeit *forty dollars*, to be recovered in manner as aforesaid; and if the offender or offenders shall not have sufficient estate to pay the same, he or they shall be confined and subject to hard labour for a term not exceeding two months.

The governor, lieutenant-governor, assistants, justices and wardens as aforesaid, be, and they are hereby empowered and directed, to send a physician or other suitable person to examine into, and make report to him or them respectively, of the true state of such vessel, and the people on board at the charge of the master or commander of such vessel.

The town council of the town where such vessel shall arrive, be, and they are hereby empowered and directed, forthwith to put on board such vessel some suitable person or persons to secure said vessel, and effectually prevent any communication therewith, at the expense of the owners.

The town council of such town be, and they are hereby empowered and directed, to confine on board said vessel, or send to some hospital, or other suitable place, all persons, mariners or passengers, or others, who came in said vessel, for a convenient time, until such of them as have, or are liable to have, the small-pox or other infectious distemper, are perfectly recovered and cleansed from said distemper, or have passed a suitable quarantine; and also, all other persons who have gone on board such vessel without license as aforesaid, at the charge and expense of such persons respectively; and also all other persons that came in said vessel, until they have been sufficiently aired and cleansed.

The town council of the town where such vessel arrives, be and they are hereby empowered and directed, to appoint two suitable persons to take effectual care that all goods, wares and merchandize imported in such vessel, which they think liable to hold and communicate the infection be landed on some of the islands in the Narraganset bay, and exposed to the sun and air, and cleansed, not exceeding ten days, nor under six days, before they are permitted to be brought into any house, shop or warehouse, other than where they are cleansed as aforesaid, and when such goods are sufficiently aired and cleansed, such persons shall give the owners or possessors thereof a certificate, and the town council shall allow and order said goods, wares and merchandize, to be delivered to the owner or owners thereof, and the charge and expense of landing, airing and cleansing such goods, wares or merchandize, shall be borne by the respective owner or owners, and all goods that are judged

by the town-council not to be infected shall be delivered to the owner or owners without delay and expense of airing, as soon as may be consistent with the safety of the town in regard to the other parts of the cargo.

All goods imported in such vessels as aforesaid, that shall be clandestinely landed, or brought into any house, shop or warehouse, without a certificate and allowance as aforesaid, and not cleansed or aired by order of the town-council as aforesaid, shall be forfeited, one third to and for the use of the State, and the other two thirds to him or them who shall inform and sue for the same, in the court of common pleas in the county where such offence shall be committed. And all assistants, justices and wardens, are hereby empowered and required, upon information given them, to seize and secure all such goods, wares and merchandise, in their respective jurisdictions, until legal trial.

The town councils of the respective towns be, and they are hereby empowered and directed, to fix, settle and adjust, all wages and charges demanded by persons employed by them to secure such vessel, or to air and cleanse such goods, or to attend upon and nurse such persons as aforesaid.

For the better securing of the payment of what charges may arise on the nursing or attendance upon any sailor or mariner belonging to such vessel as aforesaid, the master thereof is hereby required to stop payment of the wages due to such mariner until certified from the town council that such charges are fully satisfied and paid, on penalty of paying the same, so far as the amount of the wages so paid by him.

CONNECTICUT.

By a law of the state of Connecticut, it is enacted, that if any person or persons, seamen or passengers belonging to or transported in any ship or vessel, arriving at any port or harbour within the state, happen to be visited with the small-pox, or other contagious sickness during the voyage, or come from any place where such sickness prevails and is common, it shall be in the power of the select men of the town to order such person or persons to confinement in such vessel and such place as they shall think proper, and for so long a time as they shall think most convenient and safe; and if need so require, upon their application to one assistant or justice of the peace, or more, if readily to be come at, he or they may, and are hereby authorized to make out a warrant to the sheriff or constable aforesaid; or in want of such officers, or for any other special reason, to some other suitable person (who is accordingly hereby empowered with the same authorities and required upon the same penalties as the proper officers are invested with and liable to) both for the remanding such persons on board again, and confining them to the places assigned them on board or on the shore; and also for preventing persons coming to, or going from them contrary to the orders given.

Whenever any person or persons, shall come into any town in the state either by land or water, from any place where the small pox or other contagious disease is, or hath been lately prevalent, or whenever the selectmen of any town shall suspect that any person in their town hath come from such place, or is infected with, or hath been exposed to the small-pox, or such other disease, or that any goods, wares or merchandise on board any ship or vessel, arriving in such town, if landed, would be likely to communicate the small-pox or such other disease, it shall be lawful for the selectmen of such town, or such person or persons as they shall appoint the health officer or officers thereof, to require such person or persons, so coming or suspected, to disclose on oath, whether he or they have come from such place, or are infected with, or have been exposed to the small-pox, or such other disease, as also his or their whole knowledge concerning such goods, wares and merchandise, and for that purpose to administer an oath or oaths to such person or persons, or enter on board any such ship or vessel; and in case any such person or persons shall, when required, refuse to suffer such selectmen or health officer or officers, to enter into such ship or vessel or shall refuse to disclose on oath as aforesaid, said selectmen shall, without further proof, have the same authority to order, and effect the confinement of such person or persons, so refusing as is provided in the preceding paragraph of this act relative to persons suspected to have the small pox or other disease. And if such selectmen shall, on such examination, be of opinion that goods, wares and merchandise, or any part thereof, if landed would expose the inhabitants to the small pox or other contagious disease, it shall be the duty of such selectmen (with the advice of the civil authority of such town) to secure the same on board such ship or vessel, and prevent the landing thereof until they shall be suitably aired and cleansed, in such manner as such selectmen shall order and direct.

In case any person or persons shall land or unlade in any town in the state from any ship or vessel, any clothing or bedding which hath been used by any person or persons infected with the small pox, or such other disease (without the consent of the selectmen of such town) knowing the same to have been used as aforesaid, he, she or they shall forfeit to the treasurer of such town, 100 dollars, to be recovered by bill, plaint or information.

When any person in any vessel, in any harbour or road within the state, shall be taken sick, and do fear and suspect it to be the small pox, or other contagious sickness as aforesaid, it shall be the duty of the master of the vessel, immediately to put forth a signal, to wit, a white cloth, two feet square, shall be hoisted on the shrouds of said vessel, which signal shall be so continued till by order of a justice of the peace or the selectmen of the town, they shall be discharged therefrom. And on failure thereof, the master of such vessel, on conviction thereof, before the county court, in the county where such omission shall be, shall incur such penalty as the said court shall judge proper, not exceeding 40 dollars.

If any person shall bring into any town in the state, either by land or water from any place infected with the small pox, or any other mortal or contagious disease, any goods, wares or merchandise, and land them, or expose them to sale, without liberty from two or more of the selectmen of said town first had and obtained in writing under their hands, such person shall forfeit the sum of 67 dollars, one half of said penalty to the informer who shall prosecute the same to effect, the other half to the treasurer of the town in which such goods are landed or exposed to sale.

It shall be the duty of the selectmen, upon application to them made, to make speedy examination whether it be necessary to air such goods, wares or merchandize, brought in as aforesaid; and if they judge it not necessary to air them, they shall then give a certificate to the person or persons applying therefor, and liberty to land and sell the same. And whensoever any goods, wares or merchandize, brought in as aforesaid, and are suitably aired, said selectmen shall give a certificate thereof to the person whose goods, wares or merchandize are thus aired, with liberty to land or sell the same accordingly.

When it shall happen, that any ship or vessel shall come from any place where the small-pox, or other contagious sickness is prevalent, it shall be the duty of the master of such ship or vessel, and in case of the inability of the master, it shall be the duty of the next officer successively upon their arrival in any harbour, road or creek in the state forthwith to give information to one or more of the selectmen of such town where such vessel shall first arrive, from whence they came, and the true circumstances of the people and cargo on board. And whatever master, or other officer on board such vessel shall, for the space of twelve hours after his arrival, as aforesaid, neglect to give information as aforesaid, or shall neglect to wait for, and punctually obey such orders as shall be given in such case according to law, or shall suffer any of the people belonging to such ship or vessel to go on shore (except to give information as aforesaid) shall forfeit to the treasurer of such town where such offence shall be committed, the sum of 167 dollars, to be recovered by bill, plaint or information in any court proper to try the same.

If any passenger or other person on board such vessel shall presume to go on shore from any such vessel (except as before excepted, before information as aforesaid has been given, and order thereon made) such person shall incur upon himself a fine of *thirty-three dollars and thirty-four cents*, to be recovered as aforesaid.

When any soldier, sailor or marine, belonging to the army or navy of the United States, who is not an inhabitant of this state, shall become sick in any town within this state, under such circumstances that he cannot be removed, and unable to provide things necessary for his support, or procure the same from some hospital, or person employed in the hospital or medical department of the United States, it shall be the duty of the selectmen of such town to provide the necessaries for the support and relief of such soldier, sailor or marine in his sickness, and the reasonable expenses thereof properly authenticated, being laid before the governor and council, with the name of such soldier, sailor or marine, the company, regiment, ship or other vessel, and state to which he belonged, they are hereby authorized to order payment of the amount of such expense, or so much of it as shall be by them allowed, and charge the same to the account of the United States.

PENNSYLVANIA.

By a law of Pennsylvania it is enacted, That all ships and vessels, as well vessels of war as merchant vessels, arriving at the lazaretto from any port or place in the Mediterranean, or the seas or waters connected with the same, to the eastward of the Straits of Gibraltar, or from the coast of Africa without the Straits of Gibraltar, and the territory of the same, and the ports of Africa other than the Cape of Good Hope, in the Indian Ocean, and from the main land of North or South America, or the West India islands between the latitude of the river St. Mary, in Georgia, and the beginning of the latitude of thirty degrees south of the equator, and from Batavia in the island of Java, from the fifteenth day of May to the first day of October, shall there be detained at anchor, and discharge the whole of their cargoes and ballast, which, together with the vessels, bedding, clothing, and every article on board which may be supposed capable of retaining infection, shall be perfectly cleansed and purified, under the direction of the resident physician and quarantine master.

All ships or vessels, as well vessels of war as merchant vessels coming from any port or place, within the United States, and bound to the port of Philadelphia, from the 15th day of May to the 1st day of October, and having on board any goods or merchandize, the growth or produce of any port or place mentioned in the first part of this extract, or any person or persons, bedding or clothing, from any of the said ports or places, shall come to anchor opposite to the said lazaretto; and if the captain or master of such ship or vessel shall produce to the resident physician and quarantine master such satisfactory proof as the board of health shall, in that case, direct to be required, that the said goods or merchandize have been landed in the United States, and are free from damage, and that the said vessel, bedding, clothing, and persons are free from the infection of any dangerous contagious disease whatever, then, and in that case, the said resident physician and quarantine master shall give to the captain or master of such ship or vessel, a certificate of the facts, permitting such ship or vessel to proceed to the city, which certificate the said captain or master shall present at the health office in Philadelphia within twenty-four hours after his arrival and safely mooring there; and if he shall neglect so to do, being thereof convicted upon an indictment under this act, by verdict, confession, or standing mute, in any court of criminal jurisdiction within this commonwealth, he shall be sentenced to pay a fine of *two hundred dollars*; and if the said captain or master shall fail to produce such satisfactory proof as aforesaid of the whole or some state of the said vessel, goods, merchandize, bedding, clothing and persons, the said vessel, goods, merchandize, bedding, clothing and persons, shall be detained at the lazaretto, and shall be proceeded with in the same manner, and subject to the same orders and regulations as is herein before provided and directed in the case of vessels coming direct from the aforesaid foreign ports and places, mentioned in the first part of this extract; and if the captain or master of any ship or vessel coming from any port or place within the United States, and bound to the port of Philadelphia, having on board any goods or merchandize, bedding, clothing or persons as aforesaid, shall refuse or neglect to come to anchor opposite the lazaretto, and shall pass the same with intent to proceed to the city, without examination and certificate obtained from the resident physician and

quarantine master, as aforesaid, be shall, on conviction, forfeit and pay the sum of *five hundred dollars* for each and every offence; and moreover shall be sentenced to imprisonment at hard labour for any term not less than one nor more than five years, and the said vessel, goods, merchandize, bedding, clothing and persons shall be sent back to the lazaretto, there to be proceeded with in such manner as the board of health, agreeably to this act, shall in that case, devise and direct.

Any person or persons, and all goods, merchandize, bedding and clothing arriving at any port or place within the United States, from any port or place mentioned in the first part of this extract, are hereby prohibited from entering within the city or county of Philadelphia, from the 15th day of May to the 1st day of October, either by land or water, unless the said person or persons, goods, merchandize, bedding or clothing shall have been landed in such port or place within the United States in a wholesome state, at least 30 days previous thereto, under the penalty of *five hundred dollars* for each and every offence, together with the forfeiture of such goods, merchandize, bedding or clothing, one half to the benefit of the informer.

And if any master or captain shall, knowingly, receive or employ on board of his ship or vessel, or if any housekeeper or other inhabitant of this commonwealth, shall, knowingly, receive, harbour; or in any wise entertain any person so eloping or absenting from the lazaretto, without having previously obtained and producing a discharge as aforesaid, each and every master and captain, and each and every housekeeper, or inhabitant, so respectively offending shall, on being thereof legally convicted, forfeit and pay a sum of *one hundred dollars*; and moreover be sentenced to imprisonment and hard labour, for any term not less than one, nor more than five years.

If any person other than those detained at the lazaretto as aforesaid, shall go on board or along side of any ship or vessel whilst under quarantine as aforesaid, or if any person not authorized by the proper officer, shall go within the limits of the lazaretto, such person or persons shall perform such quarantine as the board of health may direct; and being thereof convicted upon indictment under this act, by verdict, confession, or standing mute in any court having criminal jurisdiction within this commonwealth, shall, moreover, be sentenced to, and suffer confinement at hard labour in the gaol of the county of Philadelphia for any space not less than one, nor more than three years.

VIRGINIA.

BY a law of the commonwealth of Virginia, it is provided, That vessels, persons and merchandize, coming or brought into any place within the commonwealth, from any other part of the world, whence the governor, with the advice of his council, shall judge it probable that any plague or other infectious disease may be brought, shall be obliged to make their quarantine in such place, during such time, and in such manner as shall be directed by the governor, by his order in council, notified by proclamation, to be published in the *Virginia Gazette*: And until they shall be discharged from the quarantine, no such persons or merchandize shall come or be brought on shore, or go or be put on board of any other vessel in the commonwealth, but in such manner, in such cases, and by such license, as shall be permitted by their order; and the vessels and persons receiving goods out of her shall be subject to the orders concerning quarantine, and for preventing infection, which shall be made by the governor and council, and notified as aforesaid.

The master of a vessel coming from sea, on board of which there shall be a person infected with the plague or other pestilential disease, shall immediately make the case known to such person as shall be appointed for the purpose, in the manner as is herein after directed, who shall give intelligence thereof with all speed to the governor, that measures may be taken for the support of the crew, and precautions used to prevent the spreading of the infection; and the master shall not enter into any port, but shall remain in some open road, and shall avoid and hinder all intercourse with other vessels or persons, nor shall any of the passengers or crew go on shore until the order of the governor and council shall be received by the master. Whosoever shall offend against this act, in either or any of the aforementioned instances, shall be amerced the sum of *one thousand five hundred dollars*.

When a place shall be infected with the plague or other pestilential disease, or when the governor, with the advice of council, shall have notified by proclamation published in the *Virginia Gazette*, that it is judged probable the plague or other pestilential disease may be brought from any place, if a vessel from such place shall be coming into a port of the commonwealth, the person who shall be authorized to see quarantine performed, shall go off, or cause some other to go off to the vessel, and at a convenient distance require the commander to declare what is his name, at what place the cargo was taken on board, at what place the vessel touched in her passage, whether any of those places were infected with the plague, or any other pestilential disease, how long the vessel had been in her passage, how many persons were on board when she set sail, whether any on board during the voyage had been infected with the plague or other pestilential disease, and who they are, how many died in the voyage, and of what distemper, what vessels he or any of his company with his privy went on board of, and whether any of their company had been on board his vessel in their voyage, and to what places those vessels belonged, and what are the contents of his lading.

The master of a vessel coming from a place infected with the plague or other pestilential disease, or having any person on board so infected, who shall conceal it, or who shall not give true answers to the questions so to be propounded to him, shall be amerced the sum of *one thousand five hundred dollars*.

The master of a vessel ordered to perform quarantine, when he shall be required, after his arrival at the place appointed, shall deliver to the officer authorized to see it performed there, the bills of health and manifests he shall have received during the voyage, with his log book and journal; and

refusing or neglecting so to do, or to repair in convenient time after notice to the place appointed, or escaping from thence before quarantine performed, shall be amerced the sum of *one thousand five hundred dollars*.

Persons ordered to perform quarantine, if they shall escape, may be compelled to return, or if they shall attempt to escape, may be detained by the persons who shall be authorized to see the quarantine performed, and who may employ force, and call for the assistance of others, if it be necessary for this purpose.

Any person going on board a vessel, or into any place under quarantine, without license from the superintendant thereof, may be compelled to remain there, in the same manner as he might have been if he had been one of the crew of the vessel. The person thus appointed to execute an order concerning quarantine, guilty of wilful breach or neglect of duty, shall be amerced the sum of *three thousand dollars*. Any person embezzling, or wilfully damaging goods performing quarantine under his direction, shall be liable to the party injured for treble the value of the damages sustained thereby. The vessel, persons and goods, after quarantine performed, certificate thereof, and that they are freed from infection, being giving by the superintendant, shall be no further restrained by virtue of this act.

GEORGIA.

By a law of this state it is enacted, that when any country shall be infected with the plague or other malignant distemper, all vessels, boats, persons and goods, shall be subject to and be liable to perform quarantine, as is in this act directed; and during such quarantine, no person or persons coming, or goods imported in any such ship, vessel, or boat, shall come on shore, or go on board any other ship or vessel, or boat, or be landed or put into any other ship or vessel, or boat, in any place within this state, other than such place as shall be appointed for that purpose; nor shall any person go on board any such ship, vessel, or boat, without license first had and obtained in writing, under the hand of such person or persons who shall be appointed to see quarantine performed; and the said ships or vessels, or boats, and the persons and goods coming and imported in or going on board the same during the time of quarantine, and all ships, vessels, boats and persons receiving any person or goods under quarantine, shall be subject to such orders, rules and directions touching quarantine, as shall be made by the authority directing the same.

If any commander, or master, or other person taking the charge of any ship or vessel, or boat, coming from any place infected as aforesaid, shall go himself, or permit or suffer any seaman or passenger to go on shore, or on board any ship or vessel, or boat whatsoever, during the quarantine, or until such ship or vessel, or boat, shall be discharged from quarantine, without such license as aforesaid, then, and in all such cases, the person offending shall forfeit and pay for every such offence, the sum of one hundred pounds sterling, to be recovered by action of debt, bill, plaint or information, in any of the courts of this state, and to be for the purpose of building of a pest house; and the judges of any of the said courts are hereby empowered to allow such reward to the informer or informers (if any there shall be) out of the said fine, as in their judgment they shall see fit, so as the same shall not exceed a moiety of the fine levied. And if any person or persons whatsoever, who shall arrive in any port or place within this state, in any ship or vessel, or boat, which shall, by reason of his coming from any country or place infected with any contagious distemper, be obliged to keep quarantine, shall quit such ship or vessel, or boat, by coming on shore, or going on board any other ship or vessel, or boat, before or while under quarantine, it shall and may be lawful for the person or persons appointed to see such quarantine duly performed, and they are hereby required to compel such person or persons to return on board of such ship or vessel, or boat, and there to remain during the time of such quarantine; and such person or persons so leaving such ship or vessel, or boat, and being thereof, after the expiration of this quarantine, convicted by one or more credible witness or witnesses, before any one justice of the peace, living near the place where the offence shall be committed, and three freeholders sworn to try the truth of the said charge, shall forfeit and pay into the hands of the said justice, the sum of fifty pounds sterling, one third thereof shall be for the informer, and the remainder, after the necessary expenses are discharged, shall be applied as herein before provided; and in default of such payment, it shall be lawful for the said justice to commit such offender to one of the public gaols of this state, for any time not exceeding twelve months, nor less than six months.

If any person or persons whatsoever shall presume to go on board and return from such ship or vessel, or boat, required to perform quarantine, before or during the time of quarantine, without a license as aforesaid, every such offender shall be compelled, and in case of resistance, by force and violence be compelled by the person or persons appointed as aforesaid, to return on board such ship or vessel, or boat, and there to remain during the time of her quarantine, and shall afterwards be liable to a fine and imprisonment, as herein before directed, in case of persons quitting a ship or vessel, or boat, performing quarantine, and to be disposed of as in that case provided; and the master of such ship or vessel, or boat, is hereby obliged to receive and maintain such person on board accordingly.

It shall and may be lawful for any officer of the customs, or such as shall be appointed to take care that such quarantine be duly performed, to seize any boat or skiff belonging to such ship or vessel, or which shall therewith be found, and to detain the same until the quarantine shall be performed; and in case any officer or other person instructed as aforesaid shall voluntarily suffer any seaman belonging to such ship or vessel, or boat, or any passenger therein, to quit such ship or vessel, or boat, while under quarantine, every such offender shall forfeit and pay the sum of *one hundred pounds sterling*, for every such offence, one third thereof to the informer, and the remaining part thereof to be applied as herein before directed, to be recovered in any of the courts of this state, with costs of suit.

After the quarantine shall have been duly performed according to the directions of this act, and upon proof to be made by oath of the master or other person having charge of the said ship or vessel, or boat, and two of the persons belonging to the said ship or vessel, or boat, before any one of the justices of the peace of this state that such ship or vessel, or boat, and all and every person therein have duly performed the quarantine as aforesaid, and that the ship or vessel, or boat, and all the persons on board are free from an infectious distemper; then, in such case, such justice is hereby required to give a certificate (gratis) thereof, and thereupon such ship or vessel, or boat, and all and every person therein, shall not be liable to any further restraint, by reason of any matter or thing contained in this act.

From and after the passing of this act, the pilot or pilots, belonging to the several ports of this state do before his or their entering on board any ship or vessel, designed for this state, make strict inquiry of every master or commander of the same, whether the plague, small-pox malignant fever or any other contagious distemper, be in such ships or vessels, and every such master or commander is hereby strictly enjoined, without equivocation or reserve, to give just and true answers to all such inquiries of the said pilot or pilots, under the penalties hereafter mentioned and expressed, and in case the said pilot or pilots shall, upon inquiry as aforesaid, find that the plague, small-pox, malignant fever, or any other contagious distemper, be in such ship or vessel, such pilot or pilots are hereby strictly forbidden and prohibited from entering therein, on any pretence whatever. And if the master or commander of any ship or vessel, or any doctor, officer, or foremastman belonging thereto, shall refuse to answer, or give any untrue answer to any pilot or pilots relating to healthiness of all persons on board the said ship or vessel, or shall refuse to be sworn or affirm to, or answer such questions as may be put to him by the health officer, or other person having authority so to do, such master or commander, or such doctor, officer, or foremastman, shall forfeit and pay the sum of one hundred pounds sterling, to be recovered and applied as herein before mentioned.

From and after the passing of this act, every master or commander of any ship or vessel, who shall arrive in this state with any negroes on board, exceeding ten in number, from Africa or elsewhere, shall, before such ship or vessel be permitted upon any pretence whatever to enter, be obliged to land and put on shore all such negroes, there to remain for and during the term of ten days, and shall suffer them to be and remain on shore at least six hours in summer, and five hours in winter, in each of the said ten days, at the parties own election, for the better purifying and cleansing the said ship or vessel, and slaves, from any malignant or contagious distemper, any law, custom or usage to the contrary notwithstanding.

An ACT to regulate the pilotage of vessels to and from the several ports of the State of Georgia.

Any person or persons acting or pretending to act as a pilot or pilots without having proper authority from the commissioners aforesaid, shall, for every such offence, be subject to a fine, not exceeding one hundred dollars, at the discretion of the commissioners of the port, or a majority of them, who are hereby authorized to assess such fine, and enforce the payment or imprisonment of the party offending, in the same manner and time, as is heretofore pointed out for recovering fines, from pilots or masters of vessels, not willing to abide by the award or decree of the commissioners of pilotage, any law, custom, or usage to the contrary of this act notwithstanding.

In case any damage, dispute, complaint or difference shall happen or arise, or be made against, or between any master or pilot for, or concerning the pilotage of any ship or vessel, or any other matter incident, or relative to the care of a pilot, in any of the said harbours, all such damages, disputes, complaints, differences (when the claim does not exceed one hundred dollars) are hereby ordered to be heard and determined by the commissioners, or a majority of them appointed for the care of the pilotage, where such damage or disputes shall happen, who by their decree, arbitration, or order, shall and may lawfully decide, adjust and regulate every such damage, dispute, complaint or difference, and if either of the said parties, master or pilot shall refuse to abide by, fulfil or perform the decree, order or other adjudication of the said commissioners, or a majority of them, who shall hear and determine the same, the party so refusing, shall be subject, in addition to the former award, to the penalty of not exceeding one hundred dollars, as the said commissioners or a majority of them shall think proper to adjudge.

If any ship or vessel whatsoever, or the cargo and freight therein contained, shall happen to receive any damage or miscarriage, or be lost through the neglect, insufficiency, or default of, or in any of the pilots for any of the said harbours, after such pilot takes charge of the same, and the claim exceeds one hundred dollars, the said pilot shall in such case, on conviction thereof in any court of record, in this state, be obliged to answer and make good to the sufferers, or to the master of such ship or vessel, all and every the damages and losses which he or they should sustain through the said pilot's neglect or default in any manner or wise whatsoever.

If any person, master or commander, that shall bring any ship or vessel to any of the bars of the coast of any of the said harbours, and shall refuse to receive on board any warranted or licensed pilot, the said person, master or commander so refusing and afterwards bringing in the said ship or vessel into any of the ports aforesaid, shall and is hereby made liable to pay the pilot first offering to come on board such ship or vessel without the bar, to take charge thereof as pilot, the same rates, dues, and payments, as are customary.

The master or commander of any ship or vessel, for the consideration of the pilotage of the said ship or vessel inward to, or outward from, any of the ports or harbours aforesaid, shall pay unto the licensed pilot that shall take charge of the same, the several sum and sums of money, rates, and prices as are established by the board of commissioners as full and ample satisfaction unto the said pilot for his care and charge in bringing in, or carrying out every such ship or vessel; and if

any licensed pilot shall ask or demand more fees for his services than is specified in the rates of pilotage, on due proof thereof before the commissioners or a majority of them, he shall forfeit double the amount of such vessel's pilotage.

To encourage as much as may be, pilots to attend the bars, that all and every licensed pilot bringing any vessel safe from sea, shall have the preference of bringing such ship or vessel up and down the river, and to sea again, provided they give their attendance and are duly qualified, and if any master or owner of any vessel in the port employ, any other pilot to carry his vessel down the river or to the sea, but the pilot who brought her in, or one belonging to the same boat, unless good and sufficient cause shall appear therefor, on due proof thereof before the commissioners, shall be liable to a fine not exceeding one hundred dollars, one half to the pilot claiming the pilotage of the vessel; but should such pilot neglect or refuse to attend and carry down said ship or vessel when ready for sea, (wind, weather and tide permitting) and thereunto required by the master, owner or consignee, shall, on conviction thereof before the board of commissioners, forfeit the upper pilotage of such vessel, and be liable to a fine not exceeding one hundred dollars; and every pilot acting on board such vessel where he has no right shall be liable to the same penalty, provided the commissioners have not sufficient evidence of the necessity of his acting.

All and every pilot in any of the harbours aforesaid, when he has brought any ship or vessel to anchor in any of the aforesaid harbours, shall and is hereby directed and required to moor such ship or vessel, or to give proper direction for the mooring of the same, and for their safe riding at such mooring.

If any pilot or pilots belonging to any port in this state, shall meet at sea with any vessel or vessels bound to another port within the same, such pilot or pilots shall, if capable and thereunto required, take charge of and pilot the same into such port, and shall be paid two dollars per day for every day such pilot shall be on board such vessel at sea without the bar, over and above the usual rates of pilotage; and no other pilot shall interfere while the first is willing to continue his services.

All vessels entering and clearing within this state, shall pay the several rates of pilotage, if a licensed pilot is offered, except the common coasting vessels to and from Charleston, and they shall pay half pilotage up, if a pilot is offered without the bar, if they take no pilot, and whole pilotage if they take one; any law, custom or usage to the contrary notwithstanding; but vessels coasting from one port to another within the state shall not be liable to pay pilotage, unless a pilot is required to act on board.

There have been instances of captains of vessels refusing to pay the pilots agreeable to rates, after getting to sea, in which case the said pilots have no remedy: *Be it further enacted*, that the captains of such vessels as have no owner or consignee in the port, shall be obliged, if requested by the pilot acting on board, to give security for the faithful payment of the pilotage before said vessel leaves such port.

Protection of American Seamen.

BY the act of the United States of May 28th, 1796, it is made the duty of the collectors of every district, to keep a book or books, in which, at the request of any seaman, being a citizen of the United States and producing proof of his citizenship, he shall enter the name of such seaman, and shall deliver to him a certificate of the same.

And it shall be the duty of the collectors to file and preserve the proofs of citizenship produced as aforesaid.

For each certificate delivered as aforesaid, the said collectors are entitled to receive from the seaman applying for the same, twenty-five cents.

By the same act it is declared to be the duty of the master of every ship or vessel of the United States, in case of the impressment or detention of any of his crew, by any foreign power, at the first port at which his vessel shall arrive, if such impressment or detention happened on the high seas, or if the same happened within any foreign port, then in the port in which the same happened, immediately to make a protest, stating the manner of such impressment or detention, by whom made, with the name and place of the person impressed or detained; distinguishing also whether he was an American citizen; and, if not, to what nation he belonged.

Every such protest, if made in a foreign country, must be transmitted to the nearest consul or agent, or minister of the United States resident in such country, if any there be; a duplicate of such protest must also be preserved, to be sent immediately after his arrival in the United States to the Secretary of State, with information to whom the original protest was transmitted.

In case such protest be made within the United States, or in any foreign country, in which no consul, agent or minister of the United States resides, the same shall, as soon as practicable be transmitted by such master to the Secretary of State.

Masters of vessels shall, before they are admitted to entry within the United States, be required by the collectors respectively to declare on oath, whether any of the crew of the ship or vessel under their command, have been impressed or detained during the voyage, and how far they have complied with the directions aforesaid; and on wilful neglect or refusal to make the declarations, or to perform the duties above required, shall forfeit and pay one hundred dollars; and for such forfeiture it shall be the duty of such collector to prosecute.

The collectors are respectively required to send a list of seamen registered within their districts, once every three months to the Secretary of State together with an account of such impressments or detentions, as shall appear by the protest of the masters to have taken place.

By the Act of March 2d, 1799, the Secretary of State is required to lay before Congress, within ten days after the commencement of each ordinary session, a statement containing an abstract of all returns made to him by the collectors, in pursuance of the former act, and of the communications received by him from the agents employed by virtue of the same in foreign countries.

Slave Trade.

BY a law of the United States, passed March 2, 1807, *it is enacted*, That from and after the first day of January, one thousand eight hundred and eight, it shall not be lawful to import or bring into the United States or the territories thereof from any foreign kingdom, place, or country, any negro, mulatto, or person of colour, with intent to hold, sell or dispose of such negro, mulatto, or person of colour, as a slave, or to be held to service or labour.

No citizen or citizens of the United States, or any other person, shall, from and after the first day of Jan. in the year of our Lord one thousand eight hundred and eight, for himself, or themselves or any other person whatsoever, either as master, factor, or owner, build, fit, equip, load or otherwise prepare any ship or vessel, in any port or place within the jurisdiction of the United States, nor shall any ship or vessel to sail from any port or place within the same, for the purpose of procuring any negro, mulatto, or person of colour, from any foreign kingdom, place, or country, to be transported to any port or place whatsoever, within the jurisdiction of the United States, to be held, sold, or disposed of as slaves, or to be held to service or labour; and if any ship or vessel shall be so fitted out for the purpose aforesaid, or shall be caused to sail so as aforesaid, every such ship or vessel, her tackle, apparel, and furniture, shall be forfeited to the United States, and shall be liable to be seized, prosecuted and condemned in any of the circuit courts or district courts, for the district where the said ship or vessel may be found or seized.

All and every person so building, fitting out, equipping, loading or otherwise preparing or sending away, any ship or vessel, knowing or intending that the same shall be employed in such trade or business, from and after the first day of January, one thousand eight hundred and eight, contrary to the true intent and meaning of this act, or any way aiding or abetting therein, shall severally forfeit and pay *twenty thousand dollars*, one moiety thereof to the use of the United States, and the other moiety to the use of any person or persons who shall sue for and prosecute for the same to effect.

If any citizen or citizens of the United States, or any person resident within the jurisdiction of the same, shall, from and after the first day of January, one thousand eight hundred and eight, take on board, receive or transport, from any of the coasts or kingdoms of Africa, or from any other foreign kingdom, place or country, any negro, mulatto, or person of colour, in any ship or vessel, for the purpose of selling them in any port or place within the jurisdiction of the United States as slaves, or to be held to service or labour, or shall be in any way aiding or abetting therein, such citizen or citizens or person, shall severally forfeit and pay five thousand dollars, one moiety thereof to the use of any person or persons who shall sue for and prosecute the same to effect; and every such ship or vessel in which such negro, mulatto, or person of colour shall have been taken on board, received or transported as aforesaid, her tackle, apparel, and furniture, and the goods and effects which shall be found on board the same, shall be forfeited to the United States, and shall be liable to be seized, prosecuted and condemned in any of the circuit courts or district courts in the district where the said ship or vessel may be found or seized. And neither the importer, nor any person or persons claiming from or under him, shall hold any right or title whatsoever to any negro, mulatto, or person of colour, nor to the service or labour thereof, who may be imported or brought within the United States, or territories thereof, in violation of this law.

If any citizen or citizens of the United States, or any other person resident within the jurisdiction of the same, shall, from and after the first day of January, one thousand eight hundred and eight, contrary to the true intent and meaning of this act, take on board any ship or vessel from any of the coasts or kingdoms of Africa, or from any other foreign kingdom, place or country any negro, mulatto, or person of colour, with intent to sell him, her or them, for a slave or slaves, or to be held to service or labour, and shall transport the same to any port or place within the jurisdiction of the United States, and there sell such negro, mulatto, or person of colour so transported as aforesaid, for a slave or to be held to service or labour, every such offender shall be deemed guilty of a high misdemeanor, and being thereof convicted before any court having competent jurisdiction, shall suffer imprisonment for not more than ten years nor less than five years, and be fined not exceeding ten thousand dollars, nor less than one thousand dollars.

If any ship or vessel shall be found, from and after the first day of January, one thousand eight hundred and eight, in any river, port, bay or harbour, or on the high seas, within the jurisdictional limits of the United States, or hovering on the coasts thereof, having on board any negro, mulatto, or person of colour, for the purpose of selling them as slaves, or with intent to land the same in any port or place within the jurisdiction of the United States, contrary to the prohibition of this act, every such ship or vessel, together with her tackle, apparel, and furniture, and the goods or effects which shall be found on board the same, shall be forfeited to the use of the United States, and may be seized, prosecuted and condemned, in any court of the United States having jurisdiction thereof. And it shall be lawful for the President of the United States, and he is hereby authorized, should he deem it expedient, to cause any of the armed vessels of the United States to be manned and employed to cruize on any part of the coast of the United States, or territories thereof, where he may judge attempts will be made to violate the provisions of this act, and to instruct and direct the com-

manders of armed vessels of the United States, to seize, take, and bring into any port of the United States all such ships or vessels, and moreover to seize; take, and bring into any port of the United States all ships or vessels of the United States, wheresoever found on the high-seas, contravening the provisions of this act, to be proceeded against according to law, and the captain, master, or commander of every such ship or vessel, so found and seized as aforesaid, shall be deemed guilty of a high misdemeanor, and shall be liable to be prosecuted before any court of the United States, having jurisdiction thereof; and being thereof convicted, shall be fined not exceeding *ten thousand dollars*, and be imprisoned not less than two years, and not exceeding four years. And the proceeds of all ships and vessels, their tackle, apparel and furniture, and the goods and effects on board of them, which shall be so seized, prosecuted, and condemned, shall be divided equally between the United States and the officers and men who shall make such seizure, take, or bring the same into port for condemnation, whether such seizure be made by an armed vessel of the United States or revenue cutter thereof, and the same shall be distributed in like manner as is provided by law, for the distribution of prizes taken from an enemy.

No captain, master or commander of any ship or vessel, of less burthen than forty tons, shall, from and after the first day of January, one thousand eight hundred and eight, take on board and transport any negro, mulatto, or person of colour, to any port or place whatsoever, for the purpose of selling or disposing of the same as a slave, or with intent that the same may be sold or disposed of to be held to service or labour, on penalty of forfeiting for every such negro, mulatto, or person of colour, so taken on board and transported as aforesaid, the sum of *eight hundred dollars*, one moiety thereof to the use of the United States, and the other moiety to any person or persons who shall sue for, and prosecute the same to effect: *Provided*, however, that nothing in this section shall extend to prohibit the taking on board or transporting on any river, or inland bay of the sea, within the jurisdiction of the United States, any negro, mulatto, or person of colour, (not imported contrary to the provisions of this act) in any vessel or species of craft whatever.

The captain, master, or commander of any ship or vessel of the burthen of forty tons or more, from and after the first day of January, one thousand eight hundred and eight, sailing coastwise, from any port in the United States, to any port or place within the jurisdiction of the same, having on board any negro, mulatto, or person of colour, for the purpose of transporting them to be sold or disposed of as slaves, or to be held to service or labour, shall, previous to the departure of such ship or vessel, make out and subscribe duplicate manifests of every such negro, mulatto, or person of colour, on board such ship or vessel, therein specifying the name and sex of each person, their age and stature, as near as may be, and the class to which they respectively belong, whether negro, mulatto, or person of colour, with the name and place of residence of every owner or shipper of the same, and shall deliver such manifests to the collector of the port, if there be one, otherwise to the surveyor, before whom the captain, master or commander, together with the owner or shipper, shall severally swear or affirm, to the best of their knowledge or belief, that the persons therein specified were not imported or brought into the United States, from and after the first day of January, one thousand eight hundred and eight, and that under the laws of the state they are held to service or labour; whereupon the said collector or surveyor shall certify the same on the said manifests one of which he shall return to the said captain, master or commander, with a permit, specifying thereon the number, names, and general description of such person, and authorizing him to proceed to the port of his destination. And if any ship or vessel, being laden and destined as aforesaid, shall depart from the port where she may then be, without the captain, master or commander having first made out and subscribed duplicate manifests, of every negro, mulatto, and person of colour, on board such ship or vessel, as aforesaid, and without having previously delivered the same to the said collector or surveyor and obtained a permit, in manner as herein required, or shall previous to her arrival at the port of her destination, take on board any negro, mulatto, or person of colour, other than those specified in the manifests, as aforesaid, every such ship or vessel, together with her tackle, apparel, and furniture, shall be forfeited to the use of the United States, and may be seized, prosecuted and condemned in any court of the United States, having jurisdiction thereof; and the captain, master or commander of every such ship or vessel, shall moreover forfeit, for every such negro, mulatto, or person of colour, so transported, or taken on board, contrary to the provisions of this act, the sum of *one thousand dollars*, one moiety thereof to the United States, and the other moiety to the use of any person or persons who shall sue for and prosecute the same to effect.

The captain, master or commander of every ship or vessel, of the burthen of forty tons or more, from and after the first day of January, one thousand eight hundred and eight, sailing coastwise, and having on board any negro, mulatto, or person of colour, to sell or dispose of as slaves, or to be held to service or labour, and arriving in any port within the jurisdiction of the United States, from any other port within the same, shall, previous to the unlading or putting on shore any of the persons aforesaid, or suffering them to go on shore, deliver to the collector, if there be one, or if not to the surveyor residing at the port of her arrival, the manifest certified by the collector or surveyor of the port from whence she sailed, as is herein before directed, to the truth of which, before such officer, he shall swear or affirm, and if the collector or surveyor shall be satisfied therewith, he shall thereupon grant a permit for unlading or suffering such negro, mulatto, or person of colour, to be put on shore, and if the captain, master or commander of any such ship or vessel being laden as aforesaid, shall neglect or refuse to deliver the manifest at the time and in the manner herein directed, or shall land or put on shore any negro, mulatto or person of colour, for the purpose aforesaid, before he shall have delivered his manifest as aforesaid, and obtained a permit for that purpose, every such captain, master or commander, shall forfeit, and pay *ten thousand dollars*, one moiety thereof to the United States, the other moiety to the use of any person or persons who shall sue for and prosecute the same to effect.

TARIFF, OR RATES OF DUTY,

ON ALL GOODS, WARES, AND MERCHANDIZES IMPORTED INTO
THE UNITED STATES OF AMERICA.

TABLE I.

*Details all Goods subject to an ad valorem Duty.**

	Importations in			Import. in	
	American vessels.	Foreign vessels.		Amer. ves.	For. ves.
	Per Cent.	PerCent.		P. Ct.	Pr.Ct.
A					
Articles, all composed wholly or chiefly of gold, silver, pearl, and precious stones,	7 1-2	8 1-4	less than sixty cents per pound, shall be deemed and taken to have cost 60 cents per pound, and shall be charged with duty accordingly,	25	27 1-2
Artificial flowers,	30	33	Cotton yarn, bleached or coloured, the original cost of which shall have been less than 75 cents per pound, shall be taken and deemed to have cost 75 cents per pound, and shall be charged with duty accordingly,	25	27 1-2
Arms, fire	20	22			
Arabic, gum	7 1-2	8 1-4			
Arms, side and fire	20	22			
Articles, all not free, and not subject to any other rate of duty, (see gold leaf)	15	16 1-2	Cotton piece goods, imported in vessels of the United States, which shall have sailed therefrom, before the 27th of April, 1816, and shall arrive therein between the 30th of June, 1816, and the 1st of June 1817, the original cost of which cotton piece goods, at the place whence imported, shall have been less than 25 cents per square yard, shall be admitted to entry, subject only to a duty of 33 1-3 per cent. on the cost of said cotton piece goods in India, and on the usual addition of 20 per cent. on that cost,	33 1-3	
B					
Brass, manufactures of all articles from, or of which brass is the material of chief value,	20	22	Caps for women,	30	33
Brass wire,	20	22	" or hats	30	33
Buttons,	20	22	" of wool,	30	33
Button moulds,	20	22	" of fur,	30	33
Buckles, of all kinds,	20	22	" of leather,	30	33
Bonnets for women,	30	33	" of chip,	30	33
Balsams,	30	33	" of straw,	30	33
Bridles,	30	33	" of silk,	30	33
Books, blank	30	33	Cosmetics,	30	33
Brushes,	30	33	Capers,	30	33
Bristol stones,	7 1-2	8 1-4	Comfits of all descriptions, preserved in sugar or brandy,	30	33
Blue, Prussian	20	22	Cabinet wares,	30	33
Bleached, or coloured, (see cotton yarn)			Carrriages, of all descriptions, and parts thereof,	30	33
C			Canes,	30	33
Cloth, hempen } Except Russian and German linens, Russia and Holland duck	20	22	Clothing, ready made	30	33
Cloth, sail }			Cotton, stockings of	20	22
Copper, manufactures of all articles from, or of which it is the material of chief value,	20	22	Chip, (see hats or caps, &c.)		
Cutlery,	20	22	Coloured, or bleached, (see cotton yarn &c.)		
Cannon,	20	22	D		
China ware,	20	22	Dyeing drugs, and materials for composing dyes, not subject to other rates of duty,	7 1-2	8 1-4
Cotton, manufactures of all descriptions, or of which it is the material of chief value, till the 30th of June, 1819 (After that day 20 per cent.)	25	27 1-2	E		
Cotton twist, do do do	25	27 1-2	Embroidery,	7 1-2	8 1-4
Cotton yarn, do do do	25	27 1-2	Epaulets,	7 1-2	8 1-4
Cotton thread, do do do	25	27 1-2	Earthen ware,	20	22
Cotton cloths, or cloths of which cotton is the material of chief value, (excepting nankeens imported direct from China,) the original cost of which, at the place whence imported, with the addition of 20 per cent. if imported from the Cape of Good Hope, or from places beyond it, and 10 per cent. from any other place, shall be less than 25 cents per square yard, shall, with such addition, be taken and deemed to have cost 25 cents per square yard, and shall be charged with duty accordingly,	25	27 1-2	F		
Cotton twist, } Unbleached, and un-			Fire arms,	20	22
Cotton yarn, } coloured, the original			Fans,	30	33
Cotton thread, } cost of which shall be			Feathers,	30	33
			Frames, or sticks, for umbrellas, or parasols,	30	33
			Fur, hats or caps of	30	33
			Floor cloths, painted	30	33
			Flags, mats of	30	33

* N. B. In all cases where an ad valorem duty shall be charged, it shall be calculated on the nett cost of the articles, at the place whence imported, (exclusive of packages, commissions, and all charges) with the usual addition established by law, of 20 per cent. on all merchandize imported from places beyond the Cape of Good Hope, and of 10 per cent. on articles imported from all other places.

	Importations in			Importations in	
	Amer. ves.	For. ves.		Amer. ves.	For. ves.
	Pr.	Ct.	Pr.	Ct.	Pr.
Flowers, artificial	30		33		30
Gum, arabic	7 1-2		8 1-4		30
Gum, senegal	7 1-2		8 1-4		30
Gold watches,	7 1-2		8 1-4		30
Gold lace,	7 1-2		8 1-4		30
Gold, (see articles all composed of, &c.)					30
Gold leaf, and all articles not free, and not subject to any other rate of duty,	15		16 1-2		30
Glass manufactures other than window glass, and black glass quart bottles,	20		22		30
Gilt wares of all kinds,	20		22		30
Grass, mats of	30		33		30
H					
Hempen Cloth, (see cloth)	30		33		
Hats, or caps of wool,	30		33		
" " fur,	30		33		
" " leather,	30		33		
" " chip,	30		33		
" " straw,	30		33		
" " silk,	30		33		
Harness,	30		33		
Head dresses, ornaments for	30		33		
Hangings, paper	30		33		
I					
IRON, manufactures of all articles from, or of which it is the material of chief value,	20		22		
Jewelry,	7 1-2		8 1-4		
Jappanned wares of all kinds	20		22		
L					
Lace gold,	7 1-2		8 1-4		
" silver,	7 1-2		8 1-4		
Laces,	7 1-2		8 1-4		
Lace veils, } of thread or silk,	7 1-2		8 1-4		
" shawls, }	7 1-2		8 1-4		
" shades, }	7 1-2		8 1-4		
Leaf, gold (see gold leaf.)					
LEAD, manufactures of all articles from, or of which it is the material of chief value,	20		22		
LEATHER, and all manufactures thereof, or of which it is the material of chief value,	30		33		
M					
Materials for composing dyes, not subject to other rates of duty,	7 1-2		8 1-4		
Manufactures of all articles from brass, copper, iron, steel, pewter, lead, tin, or of which either of them is the material value,	20		22		
Muskets,	20		22		
Manufactures, (see woollen, &c.)					
" (see cotton, &c.)					
" (see leather,)					
Millinery, of all sorts,	30		33		
Mats, of grass,	30		33		
" of flags,	30		33		
Mustard,	30		33		
Manufactures of wood, (see wood, &c.)					
Moulds, buiton	20		22		
N					
Needles,	20		22		
Nitre,	7 1-2		8 1-4		
O					
Oil, sallad	30		33		
Olives,	30		33		
Ornaments for head dresses,	30		33		
P					
Pastework,	7 1-2		8 1-4		
Pearls of all kinds, set or not set,	7 1-2		8 1-4		
Precious stones of all kinds, set or not set,	7 1-2		8 1-4		
Pearl, all articles composed wholly or chiefly of	7 1-2		8 1-4		
Precious stones, all articles composed wholly or chiefly of	7 1-2		8 1-4		
Printing types,	20		22		
Pewter, all articles manufactured from, or of which it is the material of chief value,	20		22		
Pins,	20		22		
Plated wares of all kinds,	20		22		
Prussian blue,	20		22		
Porcelain,	20		22		
Parasols, of whatever materials, " sticks or frames for	30		33		
Perfumes,	30		33		
Painted floor cloths,	30		33		
Pickles,	30		33		
Paper of every description,	30		33		
Pasteboard,	30		33		
Paper hangings,	30		33		
Parchment,	30		33		
Preserves, (see sweetmeats)					
R					
Rugs, (see wollen manufactures, &c.)					
S					
Senegal, gum-	7 1-2		8 1-4		
Salt petre,	7 1-2		8 1-4		
Silver watches,	7 1-2		8 1-4		
Stones, precious, of all kinds, set or not set,	7 1-2		8 1-4		
" Bristol	7 1-2		8 1-4		
Silver, (see articles all composed of, &c.)					
Shawls, lace, of thread or silk,	7 1-2		8 1-4		
Shades, lace, of "	7 1-2		8 1-4		
Stockings of wool or cotton,	20		22		
Sail cloth, (see cloth)					
Steel, manufactures from, of all kinds, or of which it is the material of chief value,	20		22		
Side arms,	20		22		
Stone ware,	20		22		
Stuff goods, (see woollen manufactures, &c.)					
Sticks, or frames for umbrellas or parasols,	30		33		
Straw, (see hats or caps)					
Silk hats or caps,	30		33		
Sallad Oils,	30		33		
Sweetmeats, of all descriptions, preserved in sugar or bandy,	30		33		
Saddles,	30		33		
Sticks, walking	30		33		
T					
Thread, (see lace, lace shawls, &c.)					
Types, for printing,	20		22		
Tin, manufactures from, of all articles, or of which it is the material of chief value,	20		22		
Twist, (see cotton manufactures, &c.)					
U & V					
Unbleached, and uncoloured, (see cotton and twist, &c.)					
Veils, lace, of thread or silk,	7 1-2		8 1-4		
Umbrellas,	30		33		
Vellum,	30		33		
W					
Watches, all kinds of, and parts of	7 1-2		8 1-4		
Wire, brass	20		22		
Wares, of all kinds, gilt,	20		22		
" " plated	20		22		
" " jappanned	20		22		
Woollen manufactures of all descriptions, or of which wool is the material of chief value, until the 30th of June, 1819, after that day, 20 per cent. excepting	25		27 1-2		
Blankets,					
Woollen rugs,					
Worsted, and stuff goods,					
Washes,	30		33		
Wafers,	30		33		
Wares, cabinet	30		33		
Wood, all manufactures of	30		33		
Wool, stockings of	20		22		
Walking sticks,	30		33		
Whips,	30		33		
Ware, china	20		22		
" earthen	20		22		
" stone	20		22		
Y					
Yarn, (see cotton manufactures, &c.)					

TABLE II.

Details all Goods subject to specific Duties.

	Importations in			Importations in	
	Am. ves.	For. ves.		Am. ves.	For. ves.
A.					
Ale, in bottles,	15	gal	16,5		
" otherwise than in bottles,	10		11		
Allum,	100	Cwt	110		
Almonds,	3	lb	3,3		
Anchors,	150		165		
B.					
Beer, in bottles,	15	gal	16,5		
" otherwise than in bottles,	10		11		
Bottles, black glass quart	144	grs	158,4		
Boots,	150	pair	165		
Bristles,	3	lb	3,3		
Bars, } iron in, excepting iron manu-					
Bolts, } factured by rolling,	45	Cwt	49,5		
Bars, } iron in, when manufactured by					
Bolts, } rolling,	150		165		
Bars, lead in	1	lb	1,1		
Bolts, copper	4		4,4		
" composition	4		4,4		
Bohea, (see teas)					
Brown sugar,	5		3,3		
Burgundy, (see wines)					
C.					
Cards, playing	30	pack	33		
Cables,	3	lb	3,3		
Cordage, tarred	3		3,3		
" untarred	4		4,4		
" yarns,	4		4,4		
" (wines,	4		4,4		
" packthread,	4		4,4		
" seines,	4		4,4		
Candles, tallow	3		3,3		
Candles, wax	6		6,6		
" spermaceti	6		6,6		
Chinese, cassia,	6		6,6		
Cinnamon,	25		27,5		
Cloves,	25		27,5		
Cheese,	9		9,9		
Chocolate,	3		3,3		
Cocoa,	2		2,2		
Coal, (heaped)	5	bush	5,5		
Copperas,	100	Cwt	110		
Copper, rods, bolts, spikes, or nails	4	lb	4,4		
Composition, rods, bolts, spikes or nails,	4		4,4		
Coffee,	5		5,5		
Cotton,	3		3,3		
Currants,	3		3,3		
Champagne, (see wines)					
Candy, sugar	1		1,1		
Cigars,	250	thou	275		
Clayed, white or powdered sugar,	4	lb	4,4		
Children, shoes and slippers for	15	pair	16,5		
D.					
Duck, Russia, not exceeding 52 archens, each piece,	200	pee	220		
" Ravens, not exceeding 52 archens, each piece,	125		137,5		
" Holland, not exceeding 52 archens, each piece,	250		275		
E.					
Figs,	3	lb	3,3		
Fish, foreign caught	100	quim	110		
" mackarel,	150	harl	165		
" salmon,	200		220		
" all other pickled	100		110		
Fayal, (see wines)					
G.					
Glass bottles, black quart,	144	gros	158,4		
Glass, window, not above 8 inches by 10	250	sq. ft.	275		
" " not above 10 by 12,	275		302,5		
" " above 10 inch by 12,	325		357,5		
Glue,	5	lb	5,5		
Gunpowder,	3		3,3		
Gunpowder, and } (see teas)					
Gomee, }					
H.					
Hemp,	150	C wt	165		
Hoops, sheets and rods, iron in	250		275		
Nyson (see teas)					
Holland, (see duck)					
I & J					
Iron, or steel wire, not exceeding No. 18,	5	lb	5,5		
" " " over No. 18,	9		9,9		
Iron, in bars or bolts except manufactured by rolling,	45	Cwt	49,5		
Iron, in sheets, rods or hoops,	250		275		
" in bars, or bolts, when manufactured by rolling,	150		165		
Indigo,	15	lb	16,5		
Imperial, (see teas)					
L					
Lead, in pigs, bars or sheets,	1		1,1		
" manufactured into shot,	2		2,2		
" red or white, dry or ground in oil,	5		5,5		
Lisbon, (see wines)					
Lump sugar,	10		11		
Loaf sugar,	12		13,2		
M					
Manufactures of iron into bars, or bolts, by rolling,	150	Cwt	165		
Manufacture of lead into shot,	2	lb	2,2		
Madeira, (see wines)					
Mace,	100		110		
Muscatel raisins,	3		3,3		
Manufactured tobacco, other than snuff and segars,	10		11		
Molasses,	5	gal	5,5		
N					
Nails, copper	4	lb	4,4		
" composition	4		4,4		
Nails,	3		3,3		
Nutmegs,	60		66		
O					
Ochre, dry	1		1,1		
Ochre, in oil,	1		1,1		
Oil, spermaceti, of foreign fishing,	25	gal	27,5		
" whale, or other fish oil, of foreign fishing,	15		16,5		
Olive oil, in casks,	25		27,5		
Oporto, (see wines)					
P					
Playing cards,	30	pack	33		
Pepper,	6	lb	6,6		
Pimento,	6		6,6		
Plums,	3		3,3		
Prunes,	3		3,3		
Packthread, (see cordage)					
Pickled, (see fish)					
Portugal, (see wines)					
Porter, in bottles,	15	gal	16,5		
" otherwise than in bottles,	10		11		
Paris, white	1	lb	1,1		
Pigs, lead in	1		1,1		
R					
Red lead, dry or ground in oil,	3		3,3		
Raisins, muscatel	3		3,3		
" in jars,	3		3,3		
" in boxes,	3		3,3		
" all kinds of	2		2,2		
Rhenish, (see wines)					
Rods, (see copper, composition, iron)					
Ravens, (see duck)					
Russia, (see duck)					
S					
Steel	100	Cwt	110		
Segars,	250	thou	275		
Spirits, from grain,					
1st proof,	42	gal	46,2		
2d do.	45		49,5		
3d do.	48		52,8		
4th do.	52		57,2		
5th do.	60		66		
Above 5th proof,	75		82,5		
Spirits from other materials than grain					
1st proof,	38		41,8		
2d do.	38		41,8		
3d do.	42		46,2		
4th do.	42		46,2		

	Importations in		Cts.	Per	Cts.	Cts.	Importations in	
	Am.	For.					Am.	For.
	ves.	ves.					ves.	ves.
Spirits from other materials than grain								
5th do	57	gal	62,7					
Above 5th proof,	70		77					
Shoes, of silk,	30	pair	38					
" of leather,	25		27,5					
" for children,	15		16,5					
Slippers, of silk,	30		33					
" of leather,	25		27,5					
" for children,	15		16,5					
Spikes,	2	lb	2,2					
" copper	4		4,4					
Spikes, composition	4		4,4					
Soap,	3		3,3					
Shot, manufactured of lead,	2		2,2					
Sugar, brown	3		3,3					
" white clayed or powdered,	4		4,4					
" lump,	10		11					
" loaf,	12		13,2					
" candy,	12		13,2					
Snuff,	12		13,2					
Sicily, (see wines)								
Steel wire, not exceeding No. 18,	5		5,5					
" " above No. 18,	9		9,9					
Souchong, (see teas)								
Seines,	4		4,4					
Sheets, iron in	250	cwt	275					
" lead in	1	lb	1,1					
* Salt,	20	b567	22					
Spermaceti oil,	25	gal	27,5					
Tarred cordage,	3	lb	3,3					
Tallow,	1		1,1					
Tallow candles,	3		3,3					
Teas from China								
Bohea,	12		14					
Souchong and other black,	25		34					
Imperial, gunpowder and gomee,	50		68					
Hyson and young hyson,	40		56					
Hyson skin and other green,	28		38					
" from any other place than China,								
Bohea,	14		15,4					
Souchong and other black,	34		37,4					
Teas from China								
Imperial, gunpowder and gomee,								
Hyson and young hyson,								
Hyson skin and other green,								
Tobacco manufactured, other than snuff								
and segars,	10						11	
Twines, (see cordage)								
Teneriff, (see wines)								
Tokay, (see wines)								
U								
Untarred cordage, (see cordage)								
W								
Wax candles,								6,6
Whiting,	1							1,1
White, Paris	1							1,1
Wines, Madeira								
" Burgundy								
" Champaign,								
" Rhenish &								
" Tokay								
" Sherry &								
" St. Lucar								66
On other wine not enumerated,								
when imported in bottles or								
cases,								77
" Lisbon								
" Oporto, and other wines of								
Portugal and Sicily,								55
" Teneriff,								
" Fayal and other wines of the								
Western Islands,								
All other wines when import-								
ed otherwise than in cases								
and bottles,								27,5
White lead, dry or ground in oil,	3	b						3,3
Wire, iron, or steel, not exceeding								
No. 18.	5							5,5
" " " above No. 18.	9							9,9
White clayed, or powdered sugar,	4							4,4
Window glass, (see glass)								
Y.								
Yarns, (see cordage)								

* Salt, when it weighs more than 56 lbs. per bushel, pays 20 cents for every fifty-six pounds.

N. B. It will be seen that (to the rates of duties imposed on goods, wares and merchandise in American vessels) an addition of 10 per cent. had been made, when the importations are in foreign vessels, on all the foregoing ad valorem and specific articles, except on Teas from China; in that instance alone the act makes the specific discrimination. The 3d section of the act provides, that this additional duty of 10 per cent. shall not apply to goods, wares and merchandize imported in ships or vessels not of the United States, entitled by treaty, or any act or acts of congress, to be entered in the ports of the United States, on the payment of the same duties as are paid on goods, wares and merchandize imported in ships or vessels of the United States.

The fractions in the specific duties are all tenths. Example:—White clayed or powdered sugar, in foreign vessels, is 4 4-10.

TABLE III.

DETAILS ALL ARTICLES THAT ARE FREE OF DUTY.

Of articles free of duties,

<p>A Articles all imported for the use of the United States, Apparatus, philosophical, specially imported by order and for the use of any society incorporated for philosophical or literary purposes, or for the encouragement of the fine arts, or by order, and for the use of any seminary of learning, Anatomical preparations, Animals imported for breed, Apparel, wearing, and other personal baggage in actual use Antimony, regulus of Antiquities, all collections of, specially imported, &c.*</p> <p>B Books specially imported, &c. Busts, do do Botany, specimens in Baggage, personal, in actual use Bark of the cork tree, unmanufactured, Burr stones, unwrought, Bullion, Brass, in pigs, bars or plates, " old, fit only to be remanufactured, Barilla, Brimstone or sulphur, Brazil wood Braziletto, Breed animals imported for Bars, brass in " copper in " tin in</p> <p>C Charts, specially imported, &c. Casts, do do Coins, cabinets of do do Cork tree, bark of unmanufactured Coin, gold " silver Clay, unwrought Copper imported in any shape for the use of the mint, " in pigs, bars or plates, suited to the sheathing of ships, " old, fit only to be remanufactured, Cam wood, Collections of antiquities, specially imported, &c. Cabinets of coins, Calaminaris lapis, Cloth rags of any kind,</p> <p>D Drawings, specially imported, &c. Drawing, do do Dye woods,</p> <p>E Engravings, specially imported, &c. Etching, or engraving, do do</p> <p>F Furs of all kind s, undressed Fustic</p> <p>G Gems, specially imported, &c. Gold coin,</p> <p>H Hides, raw</p> <p>I Instruments, philosophical, specially imported, &c. Implements of trade of persons arriving in the United States, Inventions, models of</p> <p>L Lapis calaminaris, Log-wood, Maps, specially imported, Medals, do do Modelling, do do</p>	<p>Mineralogy, specimens in Models of inventions, " of machinery, Mint, copper in any shape imported for the use of Natural history, specimens in Nicaragua wood, Old brass, fit only to be remanufactured, " copper, fit only to be do " pewter, fit only to be do</p> <p>P Philosophical apparatus, specially imported, &c. Paintings, do do Painting, do do Plaster of Paris, Plants, Pewter, old, fit only to be remanufactured, Preparations, anatomical Personal baggage in actual use, Pigs, brass in Plates, brass in Pigs, copper in Plates, copper in, suited for the sheathing of ships, Persons arriving in the United States, their tools or im- plements of trade,</p> <p>R Regulus of antimony, Rags of any kind of cloth, fitted wood, Remanufactured, old brass, fit only to be " old copper, do " old pewter do Raw skins,</p> <p>S Statues, specially imported, &c. Sculpture, specimens of do do Statuary, do do Silver coin, Skins, raw Sulphur, or brimstone, Spelter, Specimens of Botany, " in natural history, " in mineralogy, Stones, burr, unwrought, Ships, copper in plates for sheathing, Sheathing, copper in plates for ships</p> <p>T Trees Tools of trade of persons arriving in the United States, Tin, pigs or bars in Teutenague, Trade implements, or tools of persons arriving in the United States,</p> <p>U United States, all articles imported for the use of Unmanufactured bark of the cork tree, Unwrought burr stones, Unwrought clay, Undressed furs, Unmanufactured wood of any kind</p> <p>W Wearing apparel, and other personal baggage, in actual use, Woods for dying, " unmanufactured, of any kind, " Brazil " log " Nicaragua " red</p> <p>Z Zinc.</p>
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N. B. In all cases where the articles are stated as "specially imported," they are governed by conditions and restrictions expressed under the head "apparatus philosophical."

*Manner of transacting business at the Custom-House, with an
Abstract of all the laws relating thereto.*

[NOTE—MERCANTILE BLANKS, of every description, sold by
EDMUND M. BLUNT, corner of Fulton and Water streets, New-York.]

TONNAGE.

By act of congress improved 2d March, 1799, to be paid at the time of entering the vessel, and before any permit shall be granted for unloading any part of the cargo, (Sect. 63.) the following rates,

On all ships or vessels, entering from any foreign port or place.

		dls. cts.
American registered vessels, - - - - -	per ton	6
American certificate vessels, - - - - -	per ton	50
Vessels belonging wholly or in part to subjects of foreign powers,	per ton	2 00
Certain British vessel per treaty per ton		6
Additional tonnage on foreign vessels, denominated light money, (by act of congress 25th March, 1804.) - - - - -	per ton	50
Licensed vessels, - - - - -	per annum, per ton	6
American vessels without papers are considered, and pay the same tonnage as foreign vessels.		

The state of South Carolina is authorized by Congress to collect for any Act in force, or which may be enacted, a duty not exceeding ten cents per ton, on all ships and vessels of the United States, which shall arrive and be entered in the port of Charleston from any foreign place, and the collector of the port is to receive and account for the same.

A law similar to the above exists relative to the state of Georgia, excepting the tonnage duty is not to exceed two cents per ton upon coasting vessels and four cents per ton on foreign, for all vessels entering the ports of Savannah or St. Mary's.

Sec. 74.]

DUTIES.

	PAYABLE IN	dls. cts.
Gold coins of Great Britain and Portugal, of the standard prior to the year 1792, for every 27 grains, - - - - -		1 00
Gold coins of France, of the standard prior to the year 1792, for every 27 and 1-2 grains, - - - - -		1 00
Gold coins of Spain, the standard prior to the year 1792, every 28 1-2 grs. - - - - -		1 00
Five frank piece, for 16 dwts. 2 grs. - - - - -		93 3-10
Spanish milled dollars, - - - - -	17 dwts. 7 grs.	1 00
and in proportion for the parts of a dollar.		
Crowns of France, - - - - -	18 dwts. 17 grs.	1 10
and in proportion for the parts of a crown.		

Provided, that no foreign coins shall be receivable, which are not by law a tender for the payment of all debts, except in consequence of a proclamation of the president of the United States authorizing such foreign coins to be received in payment of the duties and fees aforesaid.

Sec. 61.]

Rates of coins for estimating duties.

	dls. cts.
Pound sterling of Great Britain, - - - - -	4 44
Pound sterling of Ireland, - - - - -	4 10
Livre turnoio of France, - - - - -	18 1-2
Florin, or Guilder of the United Netherlands, - - - - -	40
Mark banco of Hamburgh, - - - - -	33 1-3
Rix dollar of Denmark, - - - - -	1 00
Ryal plate of Spain, - - - - -	10
Vallon of do. - - - - -	5
Millree of Portugal, - - - - -	1 24
Tale of China, - - - - -	1 48

	dls	cts
Pagoda of India, - - - - -	1	84
Rupee of Bengal, - - - - -		50
Ruble of Russia, - - - - -	33	1-3

And all other denominations in value as near as may be to the said rates, or the intrinsic value thereof, compared with the money of the United States. Provided, that it shall be lawful for the president of the United States to cause to be established, fit and proper regulations for estimating the duties on goods, wares, and merchandize, imported into the United States, in respect to which the original cost shall be exhibited in a depreciated currency, issued and circulated under authority of any foreign government.

That on all goods, wares, and merchandize, imported from the Cape of Good Hope, or beyond the same, (if ad valorem articles) 20 per cent. to be added to the actual cost thereof, including all charges, (commissions, outside packages, and insurance only excepted) and 10 per cent. if from any other foreign port, before the duties are calculated.

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Compens. act. FEES OF OFFICE.

<i>To the collector and naval officer.</i>		dls.	cts.
Entry of a vessel of 100 tons or upwards	- - - - -	2	50
Clearance do do do	- - - - -	2	50
Entry of a vessel under 100 tons,	- - - - -	1	50
Clearance do do	- - - - -	1	50
Every post entry,	- - - - -	2	00
Permit to land goods,	- - - - -		20
Every bond taken officially,	- - - - -		40
Permit to load goods, for exportation for drawback,	- - - - -		30
Debenture or other official certificate,	- - - - -		20
Bill of health,	- - - - -		20
Official document (register excepted) required by any person,	- - - - -		20
<i>To the surveyor.</i>			
Admeasuring and certifying the same, of every ship or vessel of 100 tons and under, per ton,	- - - - -		1
Admeasurement of every ship or vessel above 100 tons and not exceeding 200 tons,	- - - - -	1	50
Above 200 tons,	- - - - -	2	00
For all other services on board any ship or vessel of 100 tons and upwards, having on board goods, wares, or merchandize subject to duty,	- - - - -	3	00
For like services on board any ship or vessel of less than 100 tons,	- - - - -	1	50
On all vessels, not having on board goods, wares, or merchandize subject to duty,	- - - - -	66	2-3
<i>Allowances for draft.</i>			
Sec. 58.] Any quantity of 1 cwt. or 112lb.	- - - - -		1
above 1 — and under 2 cwt.	- - - - -		2
2 — and under 3 cwt.	- - - - -		3
3 — and under 10 cwt.	- - - - -		4
10 — and under 18 cwt.	- - - - -		7
18 — and upwards.	- - - - -		9
<i>Tares.</i>			
On every whole chest of bohea tea,	- - - - -		70
half do do	- - - - -		36
quarter do do	- - - - -		20
chest of hyson or other green tea of 70 lbs, or upwards,	- - - - -		20
box of other tea, between 50 and 70 lbs.	- - - - -		18
do if 80 lbs.	- - - - -		22
do from 80 lbs. and upwards,	- - - - -		20
The above to include ropes, canvass, and other coverings.			
On all other boxes of teas, according to the invoice, or actual weight thereof,	- - - - -	2 per cent	
On coffee, in bags,	- - - - -		3
On coffee, in bales,	- - - - -		12
in casks,	- - - - -		12
On sugar, other than loaf sugar in casks,	- - - - -		15
in boxes,	- - - - -		15

	lb.
On sugar in bags or mats,	5
On cocoa, in casks	10
in bags,	1
On pimento, in casks,	16
in bags,	3
On cheese, in hampers or baskets,	10
in boxes,	20
On candles, in boxes,	8
On chocolate, in boxes,	10
On cotton, in bales,	2
in seroon,	6
On glauber salts, in casks,	8
On indigo, in barrels,	12
in other casks,	15
in seroons,	10
in bags, or mats,	3
On nails, in casks,	8
On pepper, in casks,	12
in bales,	5
in bags,	2
On sugar candy, in boxes,	1
On soap, in boxes,	10
On shot, in casks,	3
On twine, in casks,	12
in bales,	3
On all other goods according to the invoice thereof, or actual weight.	

Allowance for Leakage and Breakage.

Sec. 59. Two per cent. allowed on the guage on all merchandize, paying duty by the gallon, contained in casks.

Ten per cent. on all beer, ale and porter in bottles; and five per cent. on all other liquors in bottles, to be deducted from the invoice quantity, in lieu of breakage; or it shall be lawful to compute the duties on the actual quantity, by tale, at the option of the importer at the time of entry.

Ports of entry and delivery for Foreign vessels.

No vessel not wholly belonging to a citizen or citizens of the United States, shall be admitted to unload at any port or place except the following:—

NEW-HAMPSHIRE—*Portsmouth*. MASSACHUSETTS—*Portland and Falmouth, Newbedford, Dighton, Salem and Beverly, Gloucester, Newburyport, Marblehead, Nantucket, Boston and Charlestown, Plymouth, Bath, Frenchman's Bay, Wiscasset, Machias, Penobscot, Biddeford and Pepperelborough, Saco, Bangor and Kennebunk*. RHODE-ISLAND—*Newport, Providence, Bristol*.—CONNECTICUT—*New-London, New-Haven, Middletown*. NEW-YORK—*New-York*. NEW-JERSEY—*Perth Amboy, Jersey, Burlington*. PENNSYLVANIA—*Philadelphia*. DELAWARE—*Wilmington, New-Castle, Port Penn*. MARYLAND—*Baltimore, Annapolis*. VIENNA, Oxford, *Georgetown* on Potomac, Chestertown Creek, Nottingham, Nanjemoy, St. Mary's, Digge's-Landing, Snowhill, Carrolsburgh. VIRGINIA—*Alexandria, Kinsale, Newport, Tappahannock, Port-Royal, Fredericksburg, Urbanna, Yorktown, West-Point, Hampton, Bermuda-Hundred, City-Point, Petersburg, Richmond, East-River, Rocket's-Landing, Norfolk and Portsmouth*. NORTH-CAROLINA—*Wilmington, Newbern, Beaufort, Washington, Edenton, Plank-bridge and Plymouth*. SOUTH-CAROLINA—*Charleston, Georgetown, Beaufort*. GEORGIA—*Savannah, Sunbury*. BRUNSWICK, Frederica, St. Mary, *New-Orleans*, and Bayou St. John, in the state of Louisiana.

Nor shall any vessel from the Cape of Good-Hope, or beyond the same, be admitted to enter, except at the ports in the above list which are distinguished by *italics*.

Restrictions on Importations.

No goods, wares, or merchandize, of foreign growth, or manufacture, subject to the payment of duties, shall be brought into the United States from any foreign port,

or place in any other manner than by *sea*; nor in any ship or vessel of less than *thirty tons burthen*, agreeable to the mode of ascertaining American tonnage, except in certain districts on the northern, north-western and western boundaries of the United States, adjoining to the dominions of Great-Britain in Upper and Lower Canada, and the districts on the rivers Ohio and Mississippi.

No beer, ale, or porter to be imported in casks of less capacity than *forty gallons beer measure*, or if in bottles, in packages less than *six dozen*, under penalty of forfeiture, with the ship or vessel.

No refined lump or loaf sugar shall be imported into the United States, from any port or place, except in ships or vessels of the burthen of *one hundred and twenty tons* and upwards and in casks, or packages containing each not less than *six hundred pounds*, on pain of forfeiting the said ship or vessel, and the loaf or lump sugar imported therein, except in such casks or packages as aforesaid.

No distilled spirits, (arrack and sweet cordials excepted) to be imported in casks or vessels of less capacity than *ninety gallons wine measure*, on pain of forfeiture, with the ship or vessel, nor in casks or vessels which have been marked pursuant to any law of the United States, on pain of forfeiture of the said refined loaf or lump sugar, and distilled spirits, together with the ship or vessel: *Provided*, that the forfeiture shall not be incurred on "any ships imported or brought into the United States, in other casks or vessels aforesaid, or the ship or vessel in which they shall be brought, if such spirits shall be for the use of the seamen on board of such ship or vessel, and shall not exceed the quantity of four gallons for each seaman," and which shall at the time of the entry of the said vessel be inserted in the manifest as the sea stores of such ship or vessel.

Mode of transacting business at the Custom-House for the port of New-York, but applicable to all others in the United States.

DUTY OF MASTERS OF VESSELS.

No merchandize to be imported in any vessel belonging in whole, or in part to a citizen, or inhabitant of the United States, unless the master of such vessel shall have on board a manifest in writing, signed by such master, or other person having the command, containing the name of the port, or place where such merchandize were received, and the port where consigned or destined to, within the United States, particularly noting the merchandize destined for each port respectively; and every package on board such vessel to be particularly described—to whom consigned, or if to order, with the names of all passengers distinguishing whether cabin or steerage passengers, or both, with their baggage, and an account of all remaining sea stores, (if any): The form of such manifest is as follows:

Report and Manifest of the cargo laden on board the Ship Commodore Rodgers, whereof John Carlton is master, burthen four hundred tons, which cargo was taken on board at Amsterdam, built at New-York, State of New-York, and owned by Jacob Barker, Merchant at New-York, as per Register, granted at New-York the 17th day of September, 1816 and bound for Boston.

NEW-YORK, Jan. 1. 1817.

Marks.	Nos.	Packages and contents.	By whom shipped.	to whom consigned or if to order.	Places of consignees Residence	Port of destination.

Returned cargo.

(If any articles of the outward cargo are brought back, they are to be detailed, specifying by whom shipped outward, and to whom consigned inward)

Return of passengers, and packages belonging to them respectively.

(Here insert the names of the passengers, and whether cabin or steerage passengers; with the description and number of packages containing their baggage, or the tools, or implements of a mechanical trade.)

Report of Seventy Passengers on board the Ship American Eagle, of which Jonas Bird is master, arrived at the port of New-York, in the State of New-York, on the first day of April from London.

Form of the Manifest.

Names of	Ages	Places of Nativity.	Country from whence they came.	To what Nation they belong or owe allegiance.	Occupation.	Description of Persons.
.

VESSEL AND CABIN STORES.

(Here detail what are remaining.)

If merchandize imported are destined to be delivered in different districts, or ports, the said merchandize to be inserted in successive order in the above manifest, and all *spirits, wines and teas*, being the whole, or any part of the cargo, shall be inserted in like order, distinguishing the port where destined, and the kind, qualities and quantities thereof; and if merchandize shall be imported by citizens or inhabitants of the United States, in vessels other than of the United States, the manifest shall be of the form, and shall contain the particulars aforesaid, except that the said vessel shall be described in the manner following:

Report and manifest of the cargo laden on board the *Ship Packet*, whereof *Seth Jinkham* is master, burthen 200 tons, bound to *New-York*, which cargo was taken on board at *Amsterdam*.

Excessive quantity of sea stores to pay duty.

In addition to the above, the master of every American vessel to make the following—

Return of seamen on board the *Ship* called the *Packet* whereof *Seth Jinkham* is master; shewing also their names, the time for which they have been respectively employed, and sums retained out of the wages of each:

Date of	Whole number employed.	Names.	Time employed		Sums retained out of seamen's wages to be paid over to the collector.
			Names	Days.	

The master is authorized by law to retain from each seaman so returned, the sum paid for them to establish a marine hospital.

Vessels bound to Connecticut, by way of *Sandy-Hook*, or to *Hudson*, before they pass the port of *New-York* and immediately after arrival, the master to deposit with the collector a true manifest of the cargo on board such ship or vessel: the penalty for neglect or omission, or refusing to receive an inspector of the customs on board the same, to accompany such vessel, is five hundred dollars.

For all goods not included in the manifest, the master forfeits a sum of money equal to their value, and all merchandize not included in such manifest, belonging or consigned to the master, mate, officers or crew of such vessel, shall be forfeited, unless it is made to appear to the satisfaction of the collector, naval officer and surveyor, or the major part of them, or to a court on trial, that no part was unshipped except what is mentioned in the report, or that the manifest has been lost, or mislaid, without fraud, or defaced by accident, or incorrect by mistake.

The master of any vessel, or other person having charge thereof, belonging in whole or in part to a citizen, or citizens, inhabitant, or inhabitants of the United States, on arrival within four leagues of the coast, or within any bays, harbors, ports, rivers, creeks or inlets thereof, to have a manifest on board, and on demand made by any officer of the customs, first coming on board, to produce such manifest, and deliver him a copy thereof, signed by the master, or other persons having charge of such vessel, and the officer shall certify on the original the day and the year the same was produced, the said copy to be provided and subscribed by the master, or such other person having command; the copy of which to be compared with the original, and certified by such officer on the back thereof; the day and year such copy or copies was or were delivered to him: the original manifest to be delivered afterwards by the master to the collector: *Provided*, that not more than one copy of each manifest shall be required by any officer or officers, who shall first come on board, within four leagues of the coast of the United States, and one other copy to any officer or officers who shall first come on board within the limits of any district for which the cargo, or any part thereof, shall be destined.

The penalty on masters, for not producing manifest, and delivering copy thereof to the proper officer or officers on demand, or for not informing such officer the *true*

destination of such vessel, is five hundred dollars for each offence, and the like penalty is incurred by such officer who shall neglect or refuse to certify such manifest; and the officer is required to make a return in writing, of the name of the vessel, and master, offending in any, or all of the particulars required, to the collector of the district where such vessel may be bound.

Any vessel within four leagues of the coast, or within the limits of any district, unloading goods without authority from proper officers, the master and mate forfeit one thousand dollars for each offence, and goods forfeited, except in case of accident, necessity or stress of weather; which shall be proved before the collector, by the master, mate and one other officer or mariner.

Masters of vessels receiving goods so unladen (except as before excepted) to forfeit treble the value of such goods; and the ship, boat or vessel receiving them to be forfeited.

If any vessel having arrived within any district, shall depart, or attempt to depart from the same, (unless to some more interior port, or by stress of weather) without report to the collector, the master forfeits four hundred dollars.

Any vessel arriving from a foreign port, the master is to report to the collector, within twenty-four hours after his arrival, and within twenty-four hours thereafter, further, to report the name, burthen, &c. in writing, and shall make oath or affirmation to the truth of the same, in the words following:—

I, (A. B.) do solemnly, sincerely and truly swear, (or affirm) that the report and manifest subscribed with my name, and now delivered by me to the collector of the district of _____ contains, to the best of my knowledge and belief, a just and true account of the goods, wares and merchandize, including packages of every kind and nature whatsoever, which were on board the _____ at the time of her sailing from the port of _____ or which have been laden or taken on board at any time since, and that the packages of the said goods are as particularly described as in the bills of lading, signed for the same by me, or with my knowledge; that I am at present, and have been during the voyage, master of the said vessel, (or how long) that no package whatsoever, or any goods, wares, or merchandize have been unladen, landed, taken out, or in any manner whatever removed from on board the said _____ since her departure from the said port of _____ except such as are now particularly specified and declared in the abstract or account herewith, and that the clearance and other papers now delivered by me to the collector, are all that I now have, or have had, that any way relates to the cargo of the said vessel—And I do further swear, (or affirm) that the several articles specified in the said manifest, as the sea stores for the cabin and vessel, are truly such, and were bona fide put on board the said _____ for the use of the officers, crew and passengers thereof, and have none of them been brought and not intended by way of merchandize, or for sale, or for any other purpose, than above mentioned, and are intended to remain on board for the consumption of the said officers and crew:—I further swear, (or affirm) that if I shall hereafter discover or know of any other or greater quantity of goods, wares and merchandize of any nature or kind whatsoever, than are contained in the report and manifest subscribed, and now delivered by me, I will immediately and without delay, make due report thereof, to the collector of the port or district of _____

and I do likewise swear, (or affirm) that all matters whatsoever in the said report and manifest expressed, are to the best of my knowledge and belief just and true.

[The following addition to the oath or affirmation to be inserted in cases where the manifest shall not have been certified by some officer of the customs in manner provided:—

I further swear, (or affirm) that no officer of the customs has applied for any inspection of the manifest of the cargo on board the said vessel, and that no certificate or endorsement has been delivered to me on any manifest of such cargo. So help me God.

(Signed)

A. B.

Sworn, (or affirmed) before me, this }
day of }

The master or other person having charge of any vessel, having distilled spirits, wines or teas, shall within forty eight hours after arrival, make a report in writing to the surveyor, or officer acting as inspector of the revenue of the port, under a penalty of five hundred dollars: the report to be of the following form:—

Report of distilled spirits, wines, and teas, imported in the Ship Penguin, burthen 400 tons, whereof John Carlton is master, from Amsterdam, bound to New-York, built at Wiscasset, owned by R. Lenox.

Marks.	Numbers.	Description of Casks, Chests and Packages inclusive.	Kinds and qualities of spirits, wines and Teas.	Estimated gallons of spirits of each kind.	Estimated gallons of wines of each kind.	Estimated lbs. of Teas each of kind.	To whom consigned	Where consigned

Sea Stores, consisting of spirits, wines and teas.
(Signed)

A. B. master of _____

To _____
Inspector of the revenue }
of the port of }

Master or other person having command, neglecting to make such report, forfeits one thousand dollars.

Ships of war or packets of any prince or state, not permitted by such prince or state to carry goods in way of trade, are not required to make such reports.

Masters of vessels, after arrival and entry, may proceed to foreign ports with goods, noted on the manifest at the time of entry for such foreign port, without paying duties thereon, on giving bond that the said goods shall be actually re-exported in such vessel to a foreign port, but bonds are not required when vessels put in, in distress.

Masters of vessels having goods on board destined to different districts, other than the district at which he may arrive, to be furnished by the collector with a copy of his report, and a certificate, showing on what part of the cargo the duties have been paid or secured, and give bond for reporting such goods, on which the duties have not been paid or secured; which copy the master is to produce to the collector of the district where bound, within 24 hours after his arrival, under a penalty of 500 dollars; and the said bond to be cancelled by producing from the collector of such district, a certificate within six months, of the due entry and delivery of such merchandise in such district or districts.

In addition to the foregoing section, the master to apply to the surveyor or inspector of the port for a copy of his report (where there are distilled spirits, wines or teas on board, to be delivered in different districts) the want of which subjects such articles to forfeiture, and 500 dollars penalty on the master.

Post-Office Law.

No ship or vessel from foreign ports, or coming by sea from any port of the U. States shall be permitted to report, make entry, or break bulk, till the master shall deliver to the post-master, all letters under his care or within his power, other than such as are directed to the owner or owners of such ship or vessel, and except also such as are directed to be delivered to the port of delivery, to which such ship or vessel may be bound, and an oath or affirmation to be taken of such delivery; the master to receive two cents for each letter so delivered.

Form of the Oath.

I do solemnly _____ that I have delivered to the post-master of this city, all letters directed to any person or persons within the United States, which under my care or within my power have been brought in the _____ myself master, from _____ those directed for the owner or owners, consignee or consignees of the said vessel, and persons residing in this city, excepted. So help me God.

Goods found on board any vessel not noted on the manifest, the master to make post entry, previous to any permit being granted therefor.

Packages wanting, or goods not agreeing with the manifest, the master forfeits 500 dollars, unless made appear to the satisfaction of the principal officers of the customs, that no part of the cargo has been unloaded since it was taken on board, except such as noted in the report, and pursuant to permits; and that such disagreement arises from accident or mistake.

Vessels arriving from any foreign port, in distress, at any port in the United States, not being destined for the same, protest to be made by the master and mate, within twenty-four hours, and lodged at the custom-house; and within forty-eight hours enter his vessel, as in all other cases; and if by certificate of the wardens of the port, of the necessity thereof, the vessel may be unladen and cargo deposited in the public store, and reloaded again (except such part as may be necessary to be sold to

[When imported in a Foreign vessel.]

Entry of merchandize, imported by _____ in the _____ master,
from _____ New-York.

Marks.	Numbers inclusive.	Packages and contents.	Quantity per invoice of arti- cles subject to specific du- ties.	Value of articles subject to specific duties.	Value subject to 16 1-2 per cent ad valorem.	Value subject to 19 1-4 per cent ad valorem.	Value subject to 24 3-4 per cent ad valorem.	Amount of free goods	Charges not subject to duty.	Total amount per invoice.

The oath or affirmation in either case.

District of _____ port of _____
do solemnly, sincerely and truly swear (or affirm)
that the entry now subscribed with my name, and delivered by me to the collector of
contains a just and true account of all the
goods, wares and merchandize imported for sale, or intended to be landed in this
district for me, or on my account, or on account of any house of trade or partnership
in which I am concerned, in this district, or which actually came consigned to me,
or to any house of trade or partnership in which I am concerned, or imported by, or
consigned to _____ and intended for sale, or to be landed in this dis-
trict, in the _____ whereof _____ is master, from

that the said entry contains a just and true account in
of the costs thereof, including all charges; that the invoice or invoices, and
bill or bills of lading now produced by me, are the true, genuine and only invoices
and bills of lading by me received, of the said goods, wares and merchandize im-
ported or consigned as aforesaid, and the only invoices by which I have been char-
ged, or for which I am to account, and that the said invoices and bills of lading, are
in the actual state in which they were received by me, and that I do not know of any
other invoices or account of the said goods, wares and merchandize, different from
what is or are here produced. I do further swear (or affirm) that if I hereafter dis-
cover any other or greater quantity of goods, wares or merchandize, than is contain-
ed in the entry aforesaid, or shall receive any invoice of the whole or any part thereof,
either in quantity, quality and price that has been now exhibited, I will immediatly
and without delay, report the same to the collector of this district. I also swear,
(or affirm) that nothing has been concealed or suppressed in the entry aforesaid,
whereby to avoid the just payment of the duties imposed by the laws of the United
States, and that all matters are justly and truly expressed therein, according to my
best knowledge and belief. So help me God.

When the above entry is made by any agent, factor, or other person, other than
bona fide owner or consignee of such merchandize, such person to give bond in the
sum of 1000 dollars, over and above what the duties may amount to, with condition,
that the *bona fide* owner or consignee of such merchandize, shall, on or before the first
period of payment of such duty become due, deliver to said collector, a full and cor-
rect amount of said merchandize, in manner and form aforesaid; verified by a like
oath or affirmation, before any judge of the United States, or the judge of any court
of record of a state, or before a collector of the customs; and in case the duties are
paid at the time of entry, a like bond to be given, that such an account shall be de-
livered, within ninety days from such entry.

When the particulars of such merchandize are not known, an entry thereof to be
made according to circumstances; declaring on oath or affirmation, all the particu-
lars the party knows or believes concerning the same, to be subscribed by the party;
and where an imperfect entry is made, either for want of invoices, bills of lading, &c.
the collector to take such merchandize into his custody, until the quantity, quality
or value can be ascertained.

Every importer or consignee of distilled spirits, wines or teas, to make a separate entry of the same, specifying the name of the vessel and master, and place from whence; the quantity and quality, and a particular detail of the chests, casks or vessels, containing the same, with the marks and numbers; which entry after being certified by the collector, to be produced to the surveyor or officer acting as inspector of the revenue for the port; and all permits granted by the collector for the above articles, shall, prior to the landing of the same, be produced to the surveyor or officer acting as inspector for the port, for endorsement; any of the above articles landed, contrary to the above direction, are subject to forfeiture, and five hundred dollars penalty on the master or person having charge of the vessel.

Goods without invoice, or specification of particulars, to be stored by the collector until appraised, or invoices arrive, at the option of the importer.

Appraisers to ascertain and certify at what rate, or per centage, such goods are damaged: but no allowance for damage, unless such appraisement is lodged in the custom-house *within ten days* after the landing thereof, accompanied with a certificate of the wardens of the port.

Form of appraiser's oath and certificate, where goods are without Invoice.

We A. B. and C. D. appointed by the collector of
and to ascertain the contents and appraise the value of the merchandize contained in the several packages described in the within or annexed entry or account, do solemnly, sincerely and truly swear (or affirm) that the several articles detailed in the annexed appraisement, subscribed with our names, contains a full and true account of all the merchandize whatsoever contained in the several packages mentioned in such entry or account, and that the several prices by us affixed to each article, are to the best of our skill and judgment, the true and actual value or cost thereof, at the place of exportation. So help us God.

Form of appraiser's oath and certificate, where goods are damaged.

We, A. B. and C. D. appointed by the collector of the district of
and to ascertain and appraise the damage sustained on merchandize imported by in the
whereof is master from do solemnly, sincerely and truly swear (or affirm) that we have carefully examined the several packages hereafter enumerated and described, and find the several articles of merchandize as particularly detailed, contained in the said packages, to have received damage, as we believe, during the voyage of importation, and that the allowance by us made for such damage, is to the best of our skill and judgment just.

So help us God.

Goods not landed in fifteen days to be sent to the public store, and all goods so deposited to be at the risk and charge of the importer; and if not entered and the duties paid, or secured *within nine months* to be sold, (being first advertised for one month) the surplus money arising from such sale, after the duties and charges are paid, to be paid into the treasury of the United States, for the benefit of the owners, who upon due proof of the property, shall be entitled to the same. Perishable articles may be sold immediately.

Goods entered under a fraudulent invoice to be forfeited, or where the collector shall suspect that such goods are not invoiced agreeable to the sum, such goods are sold for at the place from whence they are imported, to be taken into his possession at the risk and expense of the importer, until they are appraised, and in case of prosecution for the forfeiture aforesaid, such appraisement shall not exclude other proof on trial, of the actual and real cost of the said goods, at the place from whence imported.

Packages may be opened in the presence of two merchants, upon suspicion of fraud, and repacked under the inspection of an officer; and if found to differ from the entry to be forfeited, unless made appear to the satisfaction of the principal officers of the customs, or a court on trial, that such difference proceeded from accident or mistake, or without intention of fraud.

Returned Cargo.

When goods, &c. the growth or manufacture of the United States shall be returned, not having been shipped for benefit of the drawback or bounty, no duty to be demanded.

Report and entry of such goods, &c. to be made, and proof by oath or affirmation of the facts thereof, in manner following:

Entry of merchandize exported from the district of New-York, in the ship Iff, Smith master, for London, on the 4th day of July by S. Handy, and returned in the ship Dido, Hall, master, from London. New-York.

Marks.	Numbers.	Packages and contents.

I *District of* do solemnly, sincerely, and truly swear, (or *port of* affirm) that the several articles of merchandize mentioned in the entry hereunto annexed, are to the best of my knowledge and belief truly and bona fide of the growth, product or manufacture of the United States, and that they were truly exported and imported as therein expressed, and that no drawback bounty or allowance has been paid or admitted thereon, or any part thereof. So help me God.

N. B. When goods so returned have been exported from any other district than the one they may be imported in, bonds to be given by the importer, in addition to the above oath in the sum of the duties, that within six months, a certificate shall be produced from the collector of the customs for the district from whence they were exported, that such goods were actually so exported; in default of which, the bond to be forfeited and the penalty paid.

Passengers.

Report of alien passengers on board the ship Canton, whereof John Rodgers is Master, arrived at the port of New-York, on the fourth day of July, 1816, from London.

Names.	Age.	Places of Birth.	Country from whence they have come.	To what Nation they belong and owe their Allegiance.	Their Occupation.	Description of their Persons.		
						Feet.	Inches.	Complexion.

Entry to be made by passengers of all clothes, tools or implements of trade or professions, arriving in the United States to settle; which articles are exempted from duty. The form of such entry, and oath respecting the same as follows:

Entry of baggage, wearing apparel, &c. imported by Peter O'Flanty, in the Ship Erin, John Hall master from Dublin.

[Here the particulars to be inserted.]

I *District of* John Hall do solemnly, sincerely and truly swear (or *Port of* affirm) that the entry subscribed by me and hereunto annexed, contains to the best of my knowledge and belief, a just and true account of the contents of the several mentioned in the said entry, imported in the Ship Erin from Dublin, and they contain no goods, wares, or merchandize whatever, other than the wearing apparel and other personal baggage (or if the case require) and the tools of the trade of a Weaver, all which are the property of who has, or have arrived, who is, or are shortly expected to arrive in the United States; and are not directly or indirectly imported for any other person or persons, or intended for sale. So help me God.

If the articles shall be entered by any other person than the owner, bond to be given in a sum equal to the amount of what the duties would be if imported subject to duty that the owner shall within one year verify such entry on oath, or the collector may direct such baggage to be examined; and if any article is contained therein, which ought to pay duty, entry must be made therefor; and if an entry is made as aforesaid, and upon examination thereof any article is found therein subject to duty, (not having been expressed at the time of making the entry) it is forfeited, and the person in whose baggage the same shall be found, forfeits and shall pay treble the value thereof,

Made of obtaining Drawback on Foreign Merchandize:

Merchandize imported into the United States, (foreign caught fish, fish-oil, and playing cards excepted) if exported within one year from the paying, or securing the duties thereon, from the ports of original importation, are entitled to a drawback of such duties, or may be transported coastways to certain districts, and the drawback if exported from thence to a foreign port, excepting those immediately

adjoining the United States,* by observing the following directions: provided, the duties paid or secured on such merchandize imported by one person or co-partnership, and entered at the same time, shall amount to 50 dollars, except distilled liquors, which must be 150 gallons, and exported in the original casks, cases, chests, boxes, or other packages in which they were imported, except liquors in casks, coffee or cocoa in casks or other packages, or unrefined sugar which may be filled up out of others of the same importation, or put up into new casks or packages corresponding therewith, which must be marked and numbered as the originals, but no change or filling up to take place unless the casks or other packages are unfit for exportation, and in no other case; the whole to be performed under the inspection of a proper officer appointed for that purpose.

When articles are imported in bulk, the packages in which they are landed shall be deemed the packages of original importation, and must be exported in the same; and all certificates for distilled spirits, wines or teas, must be given up, or no drawback to be allowed.

Twenty-four hour's notice to be given by lodging an entry therefor before shipping the goods, except distilled spirits, which require but six hours: and goods shipped without a proper permit, forfeit the drawback. The form of the entry as follows:

Entry of merchandize intended to be exported by Aaron Hart on board the Ship Peacock, whereof Seth April is master, for the benefit of drawback; which were imported into the district of New-York on the eighth June by A. Hoffman, in the master, from master from † and brought into this district on the

Marks	Numbers.	Packages and Contents	Net cost of ad valorem articles, as having paid duties.	Weight or guage	Tare and Draft, or Allowance for Leakage.

Previous to any permit being given, proof must be made by the importer, of the importation and the paying or securing the duties thereon, and every other person through whose hands such merchandize may have passed, of the identity thereof. The form of the several Oaths as follows:

Oath to be taken on exportation by the original importer.

I, do solemnly, sincerely, and truly swear (or affirm,) that the articles specified in the above or annexed entry, were imported by (or consigned to) me, in the whereof was master, from that they were duly entered by me at the custom-house of this port, and the duties paid (or secured)—that they are the same in quantity, quality, package (and value,) as at the time of importation, necessary or unavoidable wastage or damage only excepted, and are now actually laden on board the whereof is master; and that they are truly intended to be exported by me in the said vessel, to the port of and are not intended to be reloaded within the limits of the United States. So help me God.

Oath to be taken by the original importer, when the goods have been sold.

I, do solemnly, sincerely, and truly swear (or affirm,) that the articles specified in the above or annexed entry, as imported by (or consigned to) me, were truly imported by, or consigned to me, in the whereof is master, from that they were duly entered by me at the custom-house of this port, and the duties thereon paid (or secured)—that they were the same in quantity, quality, package, necessary or unavoidable wastage or damage only excepted (and value) at the time of sale or delivey to as at the time of importation. So help me God.

Oath to be taken by an intermediate person.

I, do solemnly, sincerely, and truly swear (or affirm,) that the articles of merchandize specified in this entry, were purchased by me from and were sold by me to and that they were not, to the best of my knowledge and belief, altered or in any respect changed in quantity, quality, value or package, necessary or unavoidable wastage or damage only excepted, while in my possession, or from the time of said purchase until the time of said sale. So help me God.

Oath to be taken by an exporter, other than the original importer.

I, do solemnly, sincerely, and truly swear (or affirm,) that the articles specified in the above annexed entry, were purchased by me of that they are not actually laden on board of the whereof is master, and were at the time of such landing, and are now the same in quantity, quality, package, necessary or unavoidable wastage or damage only excepted (and value) as at the time of purchase, that they are truly intended to be exported by me in the said vessel to the port and are not intended to be reloaded within the limits of the United States. So help me God.

The exporter to make oath respecting such exportation, and to give bonds before clearance, or within ten days after with security, to the satisfaction of the collector, in a penalty double

* St. Augustine, Nova-Scotia, Halifax, and the Canadas

† When merchandize are exported from the port of original importation, the following to be omitted in the above: "and brought into this district on the in the master from."

the amount of such drawback, to produce the proof required by law, in respect of their being landed without the limits of the United States; within one year if to Europe or foreign dominions in America, or within two years if to Asia or Africa. The certificate proper to be produced to be of the following form:—

I, _____ of the _____ of _____ do hereby certify, that the goods or merchandize herein after described, have been landed in this _____ between the _____ and _____ days of _____ from on board the _____ of _____ whereof _____ is at present master, viz:—

- A. B. No. 1 a 10. ten hogsheads } containing 14,000 lbs.
- C. D. No. 3. 6. 9. 15. four tierces } weight of coffee.
- E. F. No. 14. 18. 22. } eight hogsheads containing 10,000 lbs.
- 25. 27. 30. 33. 36. } weight of brown sugar.
- G. H. No. 21. a 30. } 10 chests containing 700 weight of hyson tea.
- K. No. 7. 16. 19. } three bales containing 150 pieces of nankeen,

which according to the bills of lading for the same, were shipped on board the _____ at the port of _____ in the United States of America, on or about the _____ day of _____ and consigned to _____ by _____ of _____ aforesaid merchant.

Given under _____ hand at the _____ day _____ A. A. this _____

Oath or affirmation of the master, or principal officers of the vessel, confirming the above.

We, _____ master, and _____ mate, of the _____ PORT OF _____ of _____ lately arrived from the port of _____ in the United States of America, do solemnly swear (or affirm) that the goods or merchandize enumerated and described in the preceding certificate, dated the _____ day of _____ and signed by A. A. of _____ merchant, were actually delivered at the said port, from on board the said _____ within the time specified in the said certificate.

Sworn (or affirmed) at _____ day of _____ before me, this _____

Form of a verification of the above by a Consul or agent of the United States.

I, _____ (Consul or Agent) of the United States of America, at the city of _____ do declare, that the facts set forth in the preceding certificate, subscribed by A. A. of the said _____ merchant, and dated the _____ day of _____ are to (my knowledge just and true; or are in my opinion just and true, and deserving full faith and credit.)

In testimony whereof, I have hereunto subscribed my name, and affixed the seal of my office, at this _____ day of _____

M. M. CONSUL.

If there is no Consul or Agent, the following in place thereof.

We, _____ residing in the _____ of _____ do declare, that the facts stated in the preceding certificate, signed by A. A. of the said _____ merchant, on the _____ day of _____ are (to our knowledge just and true, or are in our opinion just and true,) and worthy of full faith and credit. We also declare, that there is (no consul or public agent for the United States of America, or American merchants) now residing at this place. Dated at this _____ day of _____

R. S.
T. E.

If any goods, wares, or merchandize, entered for exportation with intent to drawback the duties, shall be landed within the limits of the United States, the same is subject to the seizure and forfeiture, together with the ship or vessel: and the vessels or boats used in landing the same, and all persons concerned therein, upon conviction, to suffer imprisonment not exceeding six months.

Merchandize may be transported coastways to such ports as vessels arriving from the Cape of Good Hope, or beyond the same, are admitted to enter at, by making the following entry, and obtaining a certificate from the port of original importation.

The form of the entry as follows:

Entry of merchandize intended to be shipped by A. M. on board the I. Q. whereof J. D. is master, for New-York, to be exported from thence for the benefit of drawback; which were imported into this district on the 17th December, in the ship Pat. J. Orne, master, from Smyrna to New-York.

Mark.	Numbers.	Packages and Contents	Cost of articles paying duty ad valorem.	Weight or Gauge.	Tare and draft, or allowance for Leakage.
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Such merchandize to be entered by the consignee, previous to the landing thereof, in manner following :

Entry of merchandise, transported coastwise, for [A. B. or C. D] in the ship Elisa, whereof Peter Smink is master, from [] for the purpose of being exported from the district of [] drawback ; which were imported in the district of [] on the [] by [] for the benefit of [] in the [] master, from []

Marks.	Numbers.	Packages.	Contents.

Oath or Affirmation to this entry.

I, _____ do solemnly, sincerely, and truly swear, (or affirm,) according to the best of my knowledge and belief, that the entry by me subscribed is just and true ; that the merchandize therein mentioned have been duly imported, and the duties thereon paid, or secured to be paid, according to law. So help me God.

The certificate accompanying such merchandize to be produced at the time of making entry, upon which a permit will be granted for unloading ; and if intended to be exported to a foreign port, the same proceedings to be had as if such merchandize had been originally imported into the district from whence they are to be exported.

Merchandize may be transported across the state of New-Jersey, by the following route, to Philadelphia, and exported from thence to a foreign port, and obtain drawback, viz. New-Brunswick, South-Amboy, and Lambertton, Bordentown, or Burlington, by making an entry as if transported by water ; the said merchandize to be inspected and marked previous to the lading on board any packet with intention of transportation as aforesaid, and obtaining the certificate as in other cases ; and if merchandize is transported by any other route, than expressed in the passport accompanying the same, or if the marks, fastenings, or seals that may be placed thereon, by direction of any officer of the customs, be broken or defaced, or unpacked, the merchandize in respect to which such omission or wrong doing shall happen, or the value thereof, shall be forfeited.

In addition to the above mentioned entry, the following shall be made to obtain the passport for transportation, and which is to accompany such merchandize.

Entry of merchandize intended to be transported by I Putnam, of the city of New-York, merchant, across the State of New-Jersey to Philadelphia.

Marks.	Numbers.	Number and description of packages.	Contents.	By whom sent.	To whom consigned.

" A. B. of the city of [New-York,] merchant, having taken the prescribed by law, _____ hereby permitted to transport across the state of New-Jersey, to the city of Philadelphia, in the state of Pennsylvania, _____ as expressed in the above entry.—Given under our hands and seals, at the custom house, this _____ day of _____

If goods are exported from the district into which they were originally imported, the exporter shall receive from the collector of such district, a debenture or debentures for the amount of such drawback, payable at the exact time or times on which the duties on such goods shall become due. *Provided*, that if the duties on such merchandize shall have been paid prior to an entry for exportation, the debenture shall be made payable in fifteen days from the time of signing the bond ; and the debenture may be made payable to the original importer when the same shall be requested, in writing by the exporter, and not otherwise.

If merchandize having been imported coastways, accompanied with a certificate, shall be exported to a foreign port, the exporter to receive a certificate from the collector of the district from whence exported ; which is to be produced to the collector of the district of original importation ; and the drawback to be paid at such port, upon debenture or debentures being granted thereon, payable as aforesaid : but in no case is the drawback to be paid until the duties are first received.

INFORMATION GENERALLY.

The want of certificates of distilled spirits, wines, or teas, subject such articles to seizure and fifty dollars fine if such certificates are not delivered to the purchaser : and if any cask, chest, vessel, or case, containing such articles, shall be found in the possession of any person, without being marked, and not being accompanied with a certificate, the same is liable to seizure.

On the sale of any cask, &c. which has been marked, the marks to be defaced in presence of some officer of inspection or customs ; and the certificate of the same to be delivered up, under the penalty of one hundred dollars and cost of suit.

Goods from foreign ports, not to be unladen but between sunrise and sunset, without special license, under a penalty of four hundred dollars on the master and every other person concerned, disability from holding any office under the government of the United States for seven years, and being advertised in the newspapers, with forfeiture of the goods; and if above four hundred dollars, value of vessel and apparel.

Goods removed before gauged and weighed; and if wines, spirits, or teas, before being marked, without permission, are forfeited.

Persons giving or offering a bribe, forfeit from two hundred to two thousand dollars.—Inspectors and officers of revenue cutters may go on board, examine and search vessels, have free access to the cabin, and seal packages; and after sunset secure hatches, &c.—Persons in charge of vessels, for breaking fastenings, but in presence of an officer, forfeit two hundred dollars.

Officers may seize within or without their districts—persons resisting or impeding them, forfeit four hundred dollars.

The master or commander of any vessel, that shall obstruct or hinder (or be the cause thereof,) any officer of the revenue, in going on board his ship or vessel, for the purpose of carrying into effect any of the revenue laws of the United States, forfeit from fifty to five hundred dollars.

REGISTER ACT.—Every owner of a vessel, residing within the limits of the United States, to swear to the register within *ninety days* after its being granted, or it becomes void, and the vessel and cargo pays foreign tonnage and duty.

Manifest for a coasting vessel.

Manifest of the cargo on board the Schooner Ann, tons, bound from New-York for Boston

master, burthen 100

Marks & Nos	No of entries	Packages & contents	Shippers	Residence	Consignees	Residence
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Extract from the law relative to the transportation of slaves.

BY an act of congress to prohibit the slave trade, approved 2d March, 1807, the following manifest in duplicates is to be exhibited, and sworn or affirmed to by the master, owner or owners, and shippers of such slave or slaves, as are taken on board for the purpose of being transported from one place to another in the United States, under the penalty of forfeiture of such ship or vessel, her tackle, apparel and furniture, and the captain, master or commander moreover forfeits for every slave so transported or taken on board contrary to the provisions of this act, the sum of *one thousand dollars*.

Manifest of slaves intended to be transported on board the ship Hand-Cuff of New York, wherof J. Foslock is master, of the burthen of 1000 tons, and bound from the port of New-York for the port of Norfolk, in the state of Virginia, this 17th day of July, 1818

Names	Sex	Age	Height ft. inch.	Class	Shipper's name.	Residence.	Owner or consignees name.	Residence
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Form of the oath required in the above case.

do solemnly swear, *knowledge and belief, the abovementioned slave*
 (were or was) not imported or brought into the United States from after the first day of Jan-
 uary, one thousand eight hundred and eight, and that under laws of the state held
 service or labour. So help me God.

Sworn to this day of
 before me

District of } *Port of*
 master of the said *having sworn to the above manifest, consisting of*
 slave and delivered duplicate thereof according to law, permission is hereby granted to th
 said to proceed with the above described slave to the port of as h
 aforesaid port of destination.

Given under my hand at this day of



THE TREATY WITH MASSACHUSETTS



POCAHONTAS RESCUING CAPTAIN SMITH.

